PEDIATRIC

1. A patient's serum SMA 6 result reveals Na 136, Cl 104, K 4.0, BUN 21, creatinine 0.9, and glucose 90. What is the serum osmolality?
   a) 270
   b) 280
   c) 284
   d) 300
   e) 310

2. The term DKA (diabetic keto acidosis) means all of the following except:
   a) Serum glucose is more than 300 mg/dL
   b) Ketonemia
   c) pH less than 7.30
   d) Bicarbonate less than 15 mEq/L
   e) Absence of ketone in the urine

3. Human beta cells can be in infected by all of the following organisms except:
   a) Coxsackievirus
   b) Group B streptococcus (GBS)
   c) CMV
   d) Mumps
   e) Rubella

4. The first abnormality noted in iron deficiency anemia is:
   a) Reduced iron stores in tissue (hemosiderin in bone marrow disappear).
   b) Reduced serum ferritin
   c) Reduced serum iron and increased TIBC (total iron-binding capacity)
   d) Increased FEP (free erythrocyte protoporphyrin)
   e) Decreased MCH & MCV

5. A 3.9 kg newborn appears with cyanosis at 2 hours of age, cyanosis progressively gets worse, also dyspnea. An examination reveals lower extremities are less cyanotic than upper extremities, hyperactive precordium, either no murmur or PDA murmur of grade 3/6, 2nd heart sound single and loud, or occasionally it may be split. Chest X-ray reveals mild cardiomegaly, normal or increased pulmonary flow, narrow mediastinum. ABG reveals Pao_2 15 to 30, pH 7.30, Pco_2 35, O_2 saturation 30 to 70%, base deficit – 15.0. Pao_2 increases slightly after hyperoxia test (i.e., 100% oxygen). EKG reveals biventricular hypertrophy. Newborn was intubated and placed on mechanical ventilator. PGE_1 and $NaHCO_3$ are given. Baby's oxygen saturation improved up to 85 to 90%. Next appropriate step in management:
   a) Fontan procedure
   b) Blalock-Taussig shunt
   c) Rashkind balloon atrial septostomy
   d) Norwood operation
   e) Starnes procedure

6. The following congenital infection is associated with diabetes (type 1) in later life:
   a) Coxsackie B 3
   b) Coxsackie B 4
   c) CMV
   d) Rubella
   e) Mumps

7. A 10-year-old boy appears with history of purulent discharge from the left ear for the last 5 days. Past medical history reveals that a tympanostomy tube was placed in his left ear 12 months ago due to recurrent purulent left otitis media. The child is afebrile. He denies any history of headache, dizziness, and vomiting. He likes to swim. He is doing well in school. Physical examination reveals purulent yellowish discharge from the left ear through tympanostomy tube. **The most common organism responsible for discharge through tympanostomy tube is:**

a) Staphylococcus aurius
b) Streptococcus pneumoniae
c) Staphylococcus epidermidis
d) Pseudomonas aeruginosa
e) Candida albicans

8. A 3.5 kg baby who is full term, AGA (appropriate of gestational age) was born by NSVD with a Apgar score 7 at 1 minute and 8 at 5 minutes. The child developed mild respiratory distress and placed under oxyhood with 40% oxygen. Chest X-ray reveals TTNB (transient tachypnea of newborn). **Lung fluid is absorbed after birth mostly by:**
a) Lymphatics
b) Aortic circulation
c) Superior vena cava
d) Pulmonary circulation
e) Inferior vena cava

9. A boy is affected with a genetically transmitted disease. He has one brother who is not affected. He has two sisters, one is affected and other is not affected. His father is normal but the mother has the disease. His mother's sisters (aunt) are all affected but the mother's brothers are not affected. His father's siblings are **not** affected. His maternal grandfather was affected but maternal grandmother was normal. **The disease is most likely transmitted:**
a) X-linked recessive
b) X-linked dominant
c) Autosomal dominant
d) Autosomal recessive
e) Multifactorial

10. A postmature newborn was admitted to NICU with tachypnea. The newborn was delivered by NSVD with Apgar scores of 9 and 9 at 1 minute and 5 minutes respectively. A chest X-ray revealed normal findings. Complete blood count (CBC) revealed central hematocrit 72 with mild thromocytopenia but the rest of the result was within normal limit. Partial exchange transfusion was performed with normal saline through umbilical vein. **This procedure may reduce the following problems except:**
a) Speech deficits
b) Decreased IQ and school problems
c) Abnormal fine motor abnormalities
d) NEC (necrotizing enterocolitis) and feeding problem
e) Other neurologic abnormalities

11. A newborn was diagnosed with congenital hydrocephalus due to aqueductal stenosis. Ventriculoperitoneal shunt was placed. The baby developed fever 3 days after surgery. Physical examination revealed erythema of scalp over shunt. Shunt was removed. S. epidermidis was isolated in blood and CSF cultures. Vancomycin was given. **Most infections are due to:**
a) Intraoperative contamination of surgical wound by skin flora
b) Preoperative infection
c) Postoperative infection due to contamination and poor wound handling
d) Shunt is infected secondary to primary systemic infection
e) Meningitis causing shunt infection

12. A child is diagnosed with seborrheic dermatitis and is treated with topical corticosteroid. The parents are upset because the child is **not** improving clinically. **Most likely diagnosis:**
a) Eczema
b) Psoriasis
c) Pityriasis rosea
d) Granuloma annulare
e) Histiocytosis X

13. RPR tests were performed on 75 newborns to rule out congenital syphilis. 5 newborns had positive RPR test results and they were diagnosed with congenital syphilis (A). 3 newborns had negative RPR test results but they were diagnosed with true congenital syphilis (C). 11 newborns had positive RPR test results but they were **not** diagnosed with congenital syphilis (B). The remaining 56 newborns had negative RPR test results and they were **not** diagnosed with congenital syphilis (D). **Positive predictive value:**
    a) 62.5%
    b) 83.5%
    c) 31%
    d) 94.9%
    e) 81.3%
    f)
14. The following statements are true about encopresis **except:**
    a) It is normal up to 5 years of age or equivalent developmental level.
    b) More common in males than females
    c) More than 1% school-aged children are affected.
    d) Chronic constipation is an etiologic factor.
    e) Educating and assisting parents to re-establish normal toileting for child is important in therapeutic intervention

15. A full-term newborn was intubated in the delivery room due to perinatal asphyxia. Apgar scores were 1 and 2 at 1 minute and 5 minutes respectively. **Sarnat staging of hypoxic ischemic encephalopathy includes all of the following except:**
    a) CT scan or MRI
    b) Muscle tone
    c) Tendon reflexes
    d) Level of consciousness
    e) EEG

16. A 16-year-old girl appears with left breast mass. She noticed the mass 7 days ago. The mass is non-tender and is located in subareolar area. She denies any history of discharge from the nipple. **Most likely diagnosis:**
    a) Lipoma
    b) Fibroadenoma
    c) Carcinoma
    d) Epithelioma
    e) Sebaceous cyst

17. A child was brought to the ER with history of drowning in a swimming pool. The child was resuscitated at the scene by emergency technicians. However, the child was pronounced dead in the ER upon arrival. **Most common cause of poor success rate for pediatric prehospital CPR (cardiopulmonary resuscitation):**
    a) Incompetent emergency technicians
    b) Poor resuscitation techniques
    c) Faulty instruments
    d) Delayed response to a emergency call
    e) Specific cause of pediatric cardiopulmonary failure

18. Most common combination of acid base disturbances:
    a) Metabolic acidosis with respiratory alkalosis
    b) Metabolic acidosis with respiratory acidosis
    c) Metabolic alkalosis with respiratory acidosis
    d) Metabolic alkalosis with respiratory alkalosis
    e) Renal tubular acidosis with respiratory alkalosis

19. A pregnant mother wanted to know about the contraindications of breast feeding. She is diagnosed with active tuberculosis (TB). Breast-feeding is contraindicated in all of the following maternal conditions **except:**
    a) Severe neuroses or psychoses
    b) AIDS

c) Mastitis
d) Active TB
e) Substance abuse

20. Sucking and swallowing coordination usually appear in a normal premature newborn (gestational age):
a) 28 week
b) 30 week
c) 32 week
d) 34 week
e) 36 week

21. Prenatal sonogram of a pregnant mother reveals gastroschisis of the fetus. Newborn was delivered by NSVD (normal spontaneous vaginal delivery) with Apgar scores 9 and 9 at 1 and 5 minutes respectively. **The true statement about gastroschisis:**
a) 90% of cases are associated with intestinal atresia.
b) Umbilical cord is attached to the abdominal wall immediately to the right of the defect.
c) Small intestine is foreshortened.
d) Covering sac is found.
e) Small size of abdominal cavity

22. A young male high school football player wanted to know about the effects of anabolic steroid use. He wants to improve muscle mass and strength. **All of the following statements are true about anabolic steroid use except:**
a) Final height is reduced.
b) Ultimate muscle mass and strength improve with normal caloric intake and without exercise
c) Gynecomastia can occur
d) Atrophic testes may develop
e) May decrease HDL and increase LDL cholesterol levels.

23. A newborn appears with vomiting, diarrhea, and jaundice. Physical examination reveals cataract and hepatosplenomegaly. Urinalysis reveals reducing substance in urine. Preliminary diagnosis is galactosemia. **The following statements are true about galactosemia except:**
a) Elimination of galactose from diet invalidates enzyme assay.
b) Decreased galactose 1-phosphate uridyl transferase activity
c) Elevated galactose 1-phosphate level
d) Cataract is due to increased galactitol.
e) Never do galactose tolerance test

24. A 14-year-old boy in 6th grade is doing poorly in all subjects. He was born in USA. Parent denies history of drug use. Physical examination reveals bilateral non-nodular enlargement of testes but normal pubertal development. The boy is mentally retarded. **The definitive diagnostic study includes:**
a) Hormonal studies (e.g., testosterone level)
b) Ultrasonographic studies of testes
c) MRI of testes
d) CT-scan of testes
e) DNA analysis

25. A newborn was delivered by NSVD with Apgar scores of 8 and 9 at 1 and 5 minutes respectively. Maternal history of polyhydramnios was recorded in the chart. Resident physician in the delivery room noted profuse esophageal secretions (e.g., about 25-30 mL). **This clinical condition is mostly associated with other anomalies except:**
a) Cardiac
b) Neurologic
c) Gastrointestinal
d) Musculoskeletal
e) Renal

26. A 18-month-old boy was brought to the ER with history of fever (102°F). He has been crying for the last 24 hours. Mother denies history of vomiting and URI (upper respiratory infections). The boy attends a daycare center regularly. Physical examination reveals redness and absence of light reflex in the left tympanic membrane. **Preferred therapy includes:**
    a) Decongestants
    b) Antihistamines
    c) Corticosteroids
    d) Trimethoprim-sulfamethoxazole
    e) Amoxicillin

27. A 5-year-old boy was brought to the ER with a history of cat bites on the face. The incident happened 2 hours ago while the child was playing with the cat at home. Physical examination reveals minor wounds on the face. **Most common organism in cat-bite wounds:**
    a) P. multocida
    b) Eikenella corrodens
    c) S. aureus
    d) S. epidermidis
    e) S. moniliformis

28. The parents of a 12-month-old boy moved to Florida from New York. The routine physical examination reveals palpable right testis in the inguinal canal but the left testis is descended and normal in size. **Difference between a retractile testis and an undescended testis is made by the following finding:**
    a) Retractile testis has an empty scrotum.
    b) Retractile testis is larger than that of undescended testis
    c) Retractile inguinal testis can be pushed down into the scrotum
    d) Scrotum is fully formed in undescended testis
    e) Sonogram findings can distinguish between retractile and undescended testes.

29. A 12-year-old boy appears with history of pain, limping, and swelling in the lower end of left thigh. The symptoms started 2 weeks ago while he was playing soccer game. He had history of trauma during the game. Physical examination reveals swelling, redness, and tenderness in the lower left thigh. X-ray of left femur reveals 'sunburst' appearance. Most likely associated condition in this clinical presentation:
    a) Neuroblastoma
    b) Neurofibroma
    c) Osteoid osteoma
    d) Ewing's sarcoma
    e) Retinoblastoma

30. A 2-month-old boy came for routine check up in pediatric clinic. He is due for immunization. The boy is healthy and asymptomatic. Mother refused routine immunization to the child. Physician failed to convince the mother. Finally, social worker spoke to the mother. However, mother does **not** want any immunization for her child. **The appropriate step should be:**
    a) Do **not** give immunization
    b) Immunization must be given
    c) Give another appointment for immunization.
    d) Call the hospital police to talk to the mother
    e) Call the CWA (child welfare agency) to talk to the mother

31. A child releases object to his mother. He can pick up pellet with unassisted pincer movement of forefinger and thumb. He can make postural adjustment to dressing. He can walk by holding hand, says a few words besides "mama" and "dada". He plays simple ball games. He was unable to build a tower of 2 to 3 cubes. **The developmental age of this child:**
    a) 9-month-old
    b) 10-month-old
    c) 12-month-old

d) 15-month-old
e) 18-month-old

32. A 6-year-old girl was brought to the ER after drowning. The girl expired in the ER despite adequate resuscitation measures. **The following statements are true about prevention of drowning and near-drowning except:**
a) Swimming lessons to children less than 8 years old are ineffective.
b) Swimming pools should be adequately fenced on all four sides with self-latching gates.
c) Education and adequate fencing can prevent majority of drowning in younger children.
d) Teenagers should avoid alcohol and drugs.
e) Pool alarm is not effective and pool covers can trap a child underneath.

33. A child was diagnosed with retinoblastoma. He received radiotherapy. **Most common second tumor may appear in this patient:**
a) Neuroblastoma
b) Hodgkin disease
c) Leukemia
d) Lymphoma
e) Soft-tissue sarcomas

34. An adolescent boy was brought to the ER by his friend. The patient was comatose but was breathing on his own. The heart rate was irregular and the BP (blood pressure) was low. During examination, the patient developed generalized convulsion. After the convulsion was stopped, hematemesis and diarrhea were noted. His friend did not know what happened to him. However, friend noticed initially that the patient had euphoria, ataxia, and distorted body image causing panic reaction. He was using abusive language. **Most common cause for the clinical manifestations:**
a) Mushroom intoxication
b) Jimsonweed intoxication
c) Marijuana use
d) Alcohol use
e) PCP (phencyclidine) use

35. A girl is affected with genetically transmitted disease. She has one brother and one sister. Both of them are **not** affected. Her father is affected with the disease but her mother is normal. Her father's one brother (uncle) and one sister (aunt) are normal. Her mother's siblings and parents are normal. Her paternal grandfather had the disease but paternal grandmother was normal. Her cousins i.e., uncle's (father's brother) siblings are normal. **The disease is most likely transmitted:**
a) Autosomal dominant
b) Autosomal recessive
c) X-linked dominant
d) X-linked recessive
e) Multifactorial

36. A boy is admitted to PICU (pediatric intensive care unit) for bacterial pneumonia. He is receiving intravenous antibiotic therapy. The boy was admitted previously for meningitis. Past medical history revealed recurrent otitis media and herpes infection. Physical examination reveals bilateral rales and eczematous skin lesions. Blood test result reveals thrombocytopenia. **All of the following statements are true for this disease except:**
a) Bone marrow transplantation is effective
b) Autosomal recessive
c) Death occurs due to infection or bleeding
d) Elevated IgA and IgE
e) Thrombocytopenia is due to intrinsic platelet defects.

37. A 2-year-old girl was admitted for intestinal obstruction. The surgery was performed. The child was kept NPO (nothing per mouth). Intravenous hydration was provided. **The most common complication of fluid therapy during and after surgery:**

a) Dehydration
b) Overhydration
c) Hypoglycemia
d) Hypernatremia
e) Hypokalemia

38. A 3-year-old boy appeared in the ER with pallor, lethargy, irritability, dehydration, and oliguria. These symptoms and signs are preceded by acute gastroenteritis (e.g., vomiting, diarrhea with bloody stools) for the last 5 days. Physical examination reveals hepatosplenomegaly, edema, and petechiae. **The following statements are true about this clinical condition except:**
a) Renal failure does occur.
b) Enteropathogenic E. coli is the most common organism
c) Endothelial cell injury is the primary event in the pathogenesis.
d) Peritoneal dialysis is indicated.
e) Coombs test is positive.

39. A child was brought to a clinic by her mother with history of craving for salt, weakness, muscle-wasting, and hyperpigmentation (in face, hand) for the last 3 months. Mother also noticed that suntan does not disappear on her body. Physical examination reveals hypotension, several hyperpigmented spots over the face, hands, and genitalia. Which of the following serum electrolyte results appropriate for this disease condition?
a) Normal Na, normal Cl, normal K, normal renin
b) Normal Na, low Cl, normal K, normal renin
c) Low Na, low Cl, normal K, normal renin
d) Low Na, low Cl, high K, high renin
e) Low Na, normal Cl, low K, low renin

40. A 16-year-old boy appears with history of bilateral gynecomastia for the last 1 year. He has mental retardation and learning disorder. He is shy. He was arrested previously for antisocial activities. Physical examination reveals tall, slim, underweight, long legs, less facial hair, and small testes. **All of the following statements are true in this clinical condition except:**
a) Most cases are associated with advanced maternal age.
b) Extra X chromosome is mostly maternal origin than that of paternal origin.
c) Meiotic nondisjunction of an X chromosome is a common cause.
d) Azoospermia is a common finding.
e) Breast cancer may develop.

41. A newborn male appears with rapid heart rate. He is afebrile. In room air, oxygen saturation is 100% recorded by pulse oxymeter. Heart rate is 260 per minute, respiratory rate is 46 per minute, and temperature is 98.6°F. **Management of this patient includes all of the following except:**
a) Verapamil
b) Adenosine
c) Ice pack over face
d) DC cardioversion
e) Propranolol

42. Blood cultures were performed on 66 newborns to rule out sepsis. 10 newborns had positive blood culture results and they were diagnosed with sepsis (A). 20 newborns had negative blood culture results but they were diagnosed with sepsis (C). 6 newborns had positive blood culture results but they were not diagnosed with sepsis (B). 30 newborns had negative blood culture results and they were not diagnosed with sepsis (D). **Negative predictive value:**
a) 33%
b) 60%
c) 83%
d) 50%
e) 70%

43. A 10-year-old healthy girl was brought to a clinic by her mother for routine physical examination. Mother asked the doctor about the normal caloric distribution should be in regular food intake:
a) Protein 50%, carbohydrate 40%, fat 10%
b) Protein 80%, carbohydrate 20%, fat 0%
c) Protein 5%, carbohydrate 60%, fat 35%
d) Protein 25%, carbohydrate 50%, fat 25%
e) Protein 15%, carbohydrate 55%, fat 30%

44. A 14-year-old girl has been suffering from asthma for the last 3 years. She is using albuterol pump daily. She also used steroid occasionally. Pulmonary function test (PFT) was performed. **Which of the following result is appropriate for this patient?**
a) Increased residual volume (RV), decreased vital capacity (VC), decreased forced expiratory volume (FEV_1)
b) Decreased RV, decreased VC, decreased FEV_1
c) Decreased RV, increased VC, decreased FEV_1
d) Increased RV, increased VC, increased FEV_1
e) Decreased RV, decreased VC, increased FEV_1

45. A child appears in the ER with history of fever (102°F), jaundice, and abdominal pain for the last 12 hours. He had liver transplantation 2 weeks ago. Liver specimen was properly matched with the child prior to surgery. Mother denies any URI symptoms and sore throat. Physical examination reveals jaundice and abdominal tenderness. **Most likely diagnosis:**
a) Hepatitis
b) CMV
c) Toxoplasmosis
d) Cholangitis
e) Liver graft rejection

46. A 9-year-old girl is a known diabetic patient. Normal caloric requirement for this patient (Kcal/kg body weight):
a) 125 – 100
b) 150 – 125
c) 100 – 75
d) 75 – 50
e) 25 – 50

47. A full-term newborn boy was admitted to NICU (neonatal intensive care unit) with mild respiratory distress. He was born by cesarean section with Apgar scores 8 an 8 at 1 and 5 minutes respectively. Initially baby was placed under 40% oxygen by oxyhood. Oxygen saturation was 85% by pulse oximeter. Physical examination reveals tachypnea but no heart murmur. Then, oxygen was increased to 50%. Chest X-ray reveals increased pulmonary vascular markings. ABG: pH 7.30 / Pco_2 42 / Po_2 65 in 40% oxygen. Umbilical arterial and venous lines were placed. Po_2 is higher in umbilical venous line than that of arterial line. Repeat CXR reveals umbilical venous line is in the right atrium and umbilical arterial line at T8 level. **Most likely diagnosis:**
a) TTNB (transient tachypnea of newborn)
b) TGA (transposition of great arteries)
c) VSD
d) ASD
e) TAPVR (total anomalous pulmonary venous return)

48. A newborn baby girl weights 8 lbs and her height is 21 inches. Her height will be 42 inches at:
a) 1 year
b) 2 years
c) 3 years
d) 4 years
e) 5 years

49. A 6-year-old boy appears with waddling gait and proximal muscle weakness. Past medical history revealed that the boy was normal until 2 years of age. Subsequently the boy developed lordotic posture and used his hands to climb up the legs (Gowers sign). Physical examination reveals pseudohypertrophy of calf muscles and wasting of thigh muscles. However, extraocular muscles and distal muscle functions are normal. **All of the following statements are true in this disease except:**
    a) Autosomal recessive
    b) Cardiomyopathy is present.
    c) Very high CPK level
    d) No muscle pain and spasm
    e) Deficiency of dystrophin (muscle protein)
50. A full-term newborn developed hypocalcemia. He received intravenous calcium. Chest X-ray revealed absence of thymus. **All of the following statements are true in this disease except:**
    a) Hypoplasia of thyroid gland
    b) Hypoplasia of parathyroid gland
    c) Truncus is common.
    d) Renal anomalies are common.
    e) Velopharyngeal insufficiency is common.

51. A pregnant woman is about to deliver a baby. She had history genital herpes. Genital examination reveals active herpetic lesions. **All of the following statements are true except:**
    a) Amniocentesis is contraindicated.
    b) Culture of baby's eyes, nose, mouth, urine, stool at 48 hours.
    c) Cesarean delivery is **not** indicated.
    d) The chances of infection is higher in primary than recurrent infection.
    e) Acyclovir-resistant herpes is treated with foscarnet.

52. A full-term newborn is admitted to regular nursery. Initially the baby was hypothermic (temperature 96°F) and he was placed in isolette. Physical examination reveals irregular, rubbery-to-firm nodule with violet to reddish color over the buttock, back, and upper extremities. **Next appropriate step in management:**
    a) Surgical consult
    b) Biopsy
    c) X-ray
    d) Dermatology consult
    e) Observation and reassurance

53. The following statements are true about SIDS (sudden infant death syndrome) **except:**
    a) Both prone and side sleeping increase risk of SIDS.
    b) All babies should sleep in supine position including infants with micrognathia and obstructive sleep apnea.
    c) Most common cause of postneonatal death 1 mo – 1 yr of age in developed countries.
    d) Future SIDS victims may have repeated fatigue during feeding and profuse sweating during sleeping.
    e) Caffeine and theophylline decrease apnea and improve respiratory pattern. However, no medication can prevent SIDS.

54. Routine physical examination of a full-term male newborn reveals cryptorchidism and abdominal muscle deficiency. Renal sonogram and VCUG (voiding cystourethrography) studies reveal obstructive uropathy and dysplastic kidneys. **Most common associated anomaly in this syndrome:**
    a) Cardiac
    b) Pulmonary
    c) Gastrointestinal
    d) Musculoskeletal
    e) Endocrine

55. All of the following medications can cause neutropenia **except:**
    a) Semisynthetic penicillins
    b) Phenothiazine
    c) Prophylthiouracil

d) Phenytoin
e) Vancomycin

56. Fluoride requirement in mg per day in breast-fed infant if community water contain less than 0.3 ppm fluoride:
a) 0.25
b) 0.50
c) 0.75
d) 0.10
e) 0.00

57. A full-term girl was born by NSVD. Physical examination performed within 2 hours after birth revealed swelling over the left parietal bone area. **All of the following statements are true about this clinical diagnosis except:**
a) Limited to one bone only
b) Resolve within 24 hours
c) Linear skull fracture may be present
d) Phototherapy may be required for jaundice
e) Begin to calcify end of second week

58. A 6-month-old child was brought to a clinic by his mother for routine follow-up. Mother gives milk if baby cries. Baby cries about 8 to 10 times per day. **Average daily number of feeding per day for this baby should be:**
a) 4 – 5
b) 5 – 6
c) 3 – 4
d) 6 – 8
e) 8 – 10

59. Coombs test was performed on 66 newborns for AO incompatibility and jaundice. 10 newborns had positive Coombs test and jaundice (A). 20 newborns had negative Coombs test despite jaundice (C). 6 newborns had positive Coombs test but absence of jaundice (B). 30 newborns had negative Coombs test and absence of jaundice (D). **Sensitivity of Coombs test:**
a) 95%
b) 33%
c) 60%
d) 62%
e) 83%

60. A 17-year-old male athlete suddenly collapsed while playing football. He was brought to the ER. He expired despite adequate CPR. Past medical history was unremarkable. Autopsy was performed. He had no history of smoking, drugs, and alcohol. **Most likely cause of death:**
a) Critical aortic stenosis
b) Mitral valve prolapse
c) Aortic incompetence
d) Hypoplastic left heart syndrome
e) Long QT interval syndrome

61. A 30-year-old man has genetically transmitted disease (homozygous). His wife is normal. They have 2 sons and 3 daughters. They are carriers of the disease (heterozygous). The man’s parents were the carrier. He has one sister who is **not** affected, other sister is a carrier, and one brother is affected and other brother is a carrier. His paternal grandmother was a carrier and paternal grandfather was not affected. His maternal grandfather was a carrier and maternal grandmother was not affected. **The disease is most likely transmitted:**
a) Autosomal recessive
b) Autosomal dominant
c) X-linked recessive
d) X-linked dominant

e) Multifactorial

62. A 9-year-old boy was admitted to PICU with the diagnosis of bacterial meningitis. He had history of fever (103°F) for the last 3 to 5 days. He was treated with ibuprofen for the diagnosis of URI. The boy subsequently became unresponsive and was placed on mechanical ventilator. He was receiving dopamine drip for hypotension. **A step-by-step progression from infection to death due to sepsis:**
a) Infection, sepsis, SIRS (systemic inflammatory response syndrome), severe sepsis, septic shock, MODS (multiple organ dysfunction syndrome), and death.
b) Infection, SIRS, sepsis, severe sepsis, septic shock, MODS, and death.
c) Infection, MODS, sepsis, severe sepsis, septic shock, SIRS, and death.
d) Infection, sepsis, severe sepsis, septic shock, SIRS, MODS, and death.
e) Infection, sepsis, severe sepsis, SIRS, septic shock, MODS, and death.

63. A male adolescent is diagnosed with primary hypogonadism. Physical examination reveals short stature, antimongoloid slant, hypertelorism, small chin, ptosis, undescended testes, grade 2/6 systolic murmur over the left upper sternal border, and mental retardation. **All of the following statements are true about this syndrome except:**
a) Autosomal dominant
b) 90% mentally retarded
c) Pulmonic stenosis
d) Associated with neurofibromatosis
e) Human growth hormone improves growth velocity

64. A 3-day-old male was brought to a clinic for the first routine check-up. Mother noticed that a small amount of milk comes out of the nose in each feeding. However, the boy is feeding well with strong suck. Physical examination reveals a small midline posterior cleft palate which was not diagnosed at birth. **Mother wants to know the approximate time to repair cleft palate:**
a) 5 years
b) 3 years
c) Before 1 year
d) 3 months
e) 7 days

65. A 6-year-old girl appears in the ER with a pustule in the right upper extremity. Mother denies history of trauma and she has no pets at home. However, the girl goes to her friend’s house and they have dogs and cats. The girl is afebrile. Physical examination reveals painless and non-itchy erythematous pustule over the right upper extremity. In addition to that, both axillary and cervical lymph nodes were enlarged, mildly erythematous, and slightly tender. **All of the following statements are true about this disease except:**
a) Indirect immunofluorescent assay (IFA) can make the diagnosis
b) Antibiotics should be given to all patients.
c) Organism is identified by PCR
d) Bartonella henselae is the causative organism.
e) Incision and drainage are not indicated for nonsuppurative nodules.

66. A 12-year-old girl noticed her abnormal facial features when she looked at the mirror in the morning and she started to cry. Her mother noticed few blisters over the right ear. She was brought to a clinic. Physical examination reveals right facial paralysis and few blisters are noted on the right ear and ear canal. All of the following statements are true in this syndrome **except:**
a) Facial nerve will recover completely
b) Caused by herpes virus.
c) Acyclovir is effective.
d) Corticosteroids are given.
e) May involve 8th cranial nerve

67. A 18-month-old boy was recalled in the clinic for increased lead level 19 μg/dL. The boy is asymptomatic. Mother stated that the apartment was not painted for the last 8 years. **All of the following statements are true about lead poisoning except:**

a) Symptoms always depend on lead level
b) Separate the child from source is important.
c) Hypochromic microcytic anemia can occur.
d) Repeat the blood lead level immediately
e) Calcium EDTA is used when lead level is 45 or above.

68. Infant is diagnosed with large cavernous hemangioma. CBC results reveal thrombocytopenia but the rest of CBC results are WNL (within normal limit). **All of the following statements are true in this syndrome except:**
a) Surgical excision may be required.
b) Corticosteroids are effective.
c) Laser photocoagulation is effective.
d) Interferon alpha-2 is effective.
e) Bone marrow has low platelet count.

69. A male child developed rapid onset of double vision, difficulty in swallowing and talking for the last 6 hours. The child was completely asymptomatic prior to that. The child was brought to the ER. He was intubated because of respiratory difficulty. Mother denies history of trauma. **All of the following statements are true in this disease condition except:**
a) Botulinum toxin is distributed hematogenously
b) Keep NPO (nothing per mouth) and start TPN (total parenteral nutrition)
c) Antibiotics are not used in uncomplicated cases especially aminoglycosides.
d) Human-derived Botulinum antitoxin (BIG-IV) is the specific therapy.
e) Cathartics should not be used.

70. Which of the following statement is true about anthrax?
a) Respiratory anthrax is the most common.
b) Anthrax vaccine can be given to children.
c) Ciprofloxacin must be used in children.
d) Spore is the infective form
e) Erythromycin is the drug of choice.

71. Which of the following statements is true about smokeless tobacco?
a) Smokeless tobacco is not harmful.
b) May cause physical dependence on nicotine if used regularly.
c) Does not cause oral lesions.
d) Does not cause cancer.
e) Can be used as substitute for smoking cigarettes.

72. Most common site of injury in swimmers?
a) Head
b) Neck
c) Shoulder
d) Chest
e) Abdomen

73. The organism which produces enterotoxin:
a) S. epidermidis
b) E. coli
c) Listeria
d) RSV
e) Streptococcus pneumoniae

74. A child is diagnosed with ITP (idiopathic thrombocytopenic purpura). Immunoglobin responsible for ITP:
a) IgM
b) IgG
c) IgA

d) IgE
e) IgD

75. Most common clinical manifestation of child abuse:
a) Hot water burn
b) Subdural hematoma
c) Rupture liver
d) Spiral fracture
e) Bruises

76. Side effects of furosemide on premature infants:
a) Apnea
b) IVH (intraventricular hemorrhage)
c) Edema
d) Deafness
e) Hypertension

77. Physical examination of a newborn reveals hypoplastic nails. Medication used by mother can cause this problem:
a) Lithium
b) Thalidomide
c) Phenytoin
d) Dicoumarol
e) Phenobarbital

78. Most common type of infratentorial brain tumor in a 3-year-old boy:
a) Gliomas (chiasmal)
b) Pineal region tumors
c) Ependymoma
d) Cerebellar astrocytoma juvenile pilocytic) and medulloblastoma
e) Craniopharyngioma

79. A child is diagnosed with scleroderma. Diagnosis is made:
a) ESR
b) IgG
c) Anti-DNA
d) Clinical features
e) IgM

80. A 1-day-old boy is diagnosed with nonketotic hyperglycinemia. Elevated glycine level is more specific:
a) Blood
b) Urine
c) CSF
d) Bone marrow
e) Lung fluid

81. Most common type of CP (cerebral palsy):
a) Spastic monoplegia
b) Spastic diplegia
c) Spastic quadriplegia
d) Spastic hemiplegia
e) Spastic quadriplegia with blindness

82. Marijuana intoxication can cause:
a) Increases short-term memory
b) Increases temperature

c) Decreases heart rate
d) Increases bronchospasm
e) Reduces intraocular pressure

83. A child is diagnosed with autosomal dominant polycystic kidney disease (ADPKD). He suddenly became lethargic and developed seizure activities. **Head CT scan reveals:**
a) Brain cyst
b) Brain abscess
c) Normal
d) Subarachnoid hemorrhage
e) Brain tumor

84. Atypical lymphocyte is found in all of the following diseases except:
a) Hepatitis A
b) Infectious mononucleosis
c) Rubella
d) Toxoplasmosis
e) CMV

85. Most common organism responsible for nonbullous impetigo:
a) S. aureus
b) C. albicans
c) Herpes
d) S. epidermidis
e) Pseudomonas

86. A child was brought to the ER for a severe injury to the right eye while playing baseball. Physical examination reveals a red and swollen right eye. **Next step in management:**
a) Make an appointment in eye clinic tomorrow
b) Sonogram of right eye
c) Remove foreign body
d) Irrigation of right eye
e) Patch eye and refer patient to an opthalmologist immediately

87. A mother of a 6-month-old boy wants to know the amount of formula feeding in ounce(oz) in each feeding:
a) 2 – 3
b) 6 – 7
c) 4 – 5
d) 5 – 6
e) 7 – 8

88. Coombs test was performed on 66 newborns for BO incompatibility and jaundice. 10 newborns had positive Coombs test and jaundice (A). 20 newborns had negative Coombs test despite jaundice (C). 6 newborns had positive Coombs test but absence of jaundice (B). 30 newborns had negative Coombs test and absence of jaundice (D). **Specificity of Coombs test:**
a) 95%
b) 33%
c) 60%
d) 62%
e) 83%

89. A 5-year-old girl was brought by her mother to a genetic clinic. The girl’s father is affected with a genetically transmitted disease. The girl’s mother is not affected. Father has one brother and two sisters. They are not affected. The girls paternal grandfather is not affected. The girls paternal grandmother’s brother is affected. The girl has two brothers. They are not affected. **The disease is most likely transmitted.**
a) Autosomal recessive

b) Autosomal dominant
c) X-linked recessive
d) X-linked dominant
e) Multifactorial

90. A child was brought to the ER after a car accident. There was nobody to give a proper history. The child was cyanotic and unresponsive. He was intubated immediately. The child's oxygen saturation improved to 100% but no spontaneous respiration was noted. Physical examination revealed hypotension, multiple bruises, abdominal distension, and obvious femoral fracture. The surgeon suspected splenic rupture, which was confirmed by a CT scan. The family could not be contacted. **The next appropriate step in management would be to:**
a) Wait for the parents to arrive and give consent prior to surgery.
b) The surgeon is getting ready to do the surgery but decided to wait at least 2 hours for his parents to arrive.
c) Get consent from the social worker involved in the case.
d) Get consent from a neighbor who was contacted by the social worker.
e) Surgeon should do the procedure without waiting to obtain a consent for the benefit of the patient.

91. Platelet counts are abnormal in which type of von Willebrand disease:
a) Type 1
b) Type 2B
c) Type 3
d) Type 2A
e) Type 2N

92. Identify the true statement about the diagnosis of Staphylococcal toxic shock syndrome:
a) Production of toxic shock syndrome toxin (TSST-1) by an isolette is useful.
b) Clinical presentation is non-specific.
c) Cultures are usually positive from the site of infection.
d) Blood cultures are usually positive.
e) Majority of nonmenstrual cases do not produce TSST-1.

93. A 17-year-old girl never experienced menstruation. She is an athlete. She is usually very busy in her basketball practice. **She is tall and well developed.** She experienced a headache occasionally. Headache was relieved by acetaminophen. **Most common cause of amenorrhea in this patient:**
a) Pregnancy
b) Pituitary tumor
c) Turner syndrome
d) Imperforate hymen
e) Ovarian tumor

94. A boy is diagnosed with proximal renal tubular acidosis (RTA) or type II. Subsequently he developed rickets. Most common cause of rickets in this patient:
a) Loss of vitamin D in urine
b) Primary hypoparathyroidism
c) Loss of calcium in stool
d) Loss of bicarbonate in stool
e) Phosphaturic hypophosphatemia

95. Mode of inheritance in retinoblastoma:
a) Autosomal dominant
b) Autosomal recessive
c) X-linked dominant
d) X-linked recessive
e) Multifactorial

96. Preferred diagnostic test for DDH (developmental dysplasia of hip) or CDH (congenital dislocation of hip):

a) X-ray hip joints
b) Nuclear bone scan
c) Ultrasonography
d) CT-scan
e) Ortalani test

97. Oxygen dissociation curve appears shift to right (decrease in affinity, increase of oxygen release to tissue) in:
a) Alkalosis
b) Hyperthermia
c) Hypothermia
d) Decrease CO_2
e) Decrease ATP

98. Heart disease is most common:
a) Trisomy 21
b) Trisomy 18
c) Trisomy 13
d) Turner syndrome
e) Trisomy 22

99. Circumcision is indicated:
a) Hypospadius
b) Chordee
c) Micropenis
d) Chordee with hypospadius
e) UTI (urinary tract infection)

100. Opthalmologic examination reveals posterior subcapsular cataract, most likely cause:
a) Rubella
b) Steroid-induced
c) Diabetes mellitus
d) Galactosemia
e) Wilson’s disease

A 8-year-old boy appears in the ER with history of URI (upper respiratory infection) for the last 5 days. He received acetaminophen for fever up to 103°F. He does not want to eat. His activities are decreased significantly. For the last 12 hours, his fever went up to 104°F despite acetaminophen therapy. He vomited yellowish material twice. He is irritable, lethargic, and complains of back pain. He denies sore throat and pain in ears. He denies any history of trauma. He is not allergic to any medication. Past medical history is unremarkable.

Vital signs: Temperature 105°F (40.5°C),
heart rate 120 per minute (normal 70 – 110),
respiratory rate 20 per minute (normal 17 – 23),
blood pressure 100/60 (50th percentile).

101. Physical examination reveals:
a) Pharyngeal exudate
b) Redness in tympanic membranes
c) Rales in right lung
d) Nuchal rigidity
e) Abdominal tenderness

102. Investigation which leads to definitive diagnosis:
a) Audiometry
b) Abdominal X-ray

c) Pharyngeal culture
d) Sputum culture
e) CSF

103. Test results reveal:
a) Conductive hearing loss
b) Dilated small intestine
c) Group A Streptococci
d) S. aureus
e) CSF: Gram stain positive for Gram positive cocci and culture positive for S. pneumoniae

104. The next step in management:
a) Intravenous antibiotics
b) Surgical consult
c) Oral antibiotics
d) Intravenous hydration
e) Bronchodilator therapy

105. The child is kept NPO (nothing per mouth). IV fluid should be given:
a) Two times of maintenance
b) One and half times of maintenance
c) One time maintenance
d) One half to two thirds of maintenance
e) One fourth of maintenance

A 6-year-old girl appears in the ER with history of persistent vomiting and headache for the last 48 hours. She had been vomiting once in the morning for the last 3 months before she went to school. Her personality changed for the last 4 months. She is more forgetful, irritable, and lethargic. Her performance in school deteriorated for the past 4 months. Her mother denies any history of fever, URI symptoms, or unusual eating habits. However, her headache improves after vomiting.

Vital signs: Temperature 98.6°F (37°C),
pulse rate 100 per minute (normal 80 – 120),
respiratory rate 21 per minute (normal 18 – 24),
blood pressure 96/58 (50th percentile)

106. Physical examination reveals:
a) Abdominal tenderness
b) Nystagmus
c) Dehydrated skin
d) Normal
e) Flank tenderness

107. The next step in management:
a) Upper GI series
b) Blood glucose test
c) MRI head
d) Urinalysis
e) Psychiatric evaluation

108. Definitive therapy includes:
a) Surgical resection of brain tumor
b) IV hydration and insulin
c) Surgical removal of intestinal obstruction
d) Antibiotics
e) Antidepressive drugs

109. If the patient is not treated, usual complication:
    a) Hydrocephalus
    b) DKA (diabetic ketoacidosis)
    c) Intestinal necrosis
    d) Hydronephrosis
    e) Schizophrenia

A 15-year-old girl appears with fever, malaise, and sore throat for the last 10 days. She developed abdominal discomfort for the last 1 to 2 days. She said that fever and sore throat are not getting better despite amoxicillin therapy for the last 48 hours. She developed rashes for the last 2 days.

Vital signs: Temperature 102.2°F (39°C),
pulse rate 88 per minute (normal 60 – 105),
respiratory rate 19 per minute (normal 17 – 21),
and blood pressure 110/80 (normal)

110. Physical examination may reveal all of the following **except:**
    a) Lymphadenopathy
    b) Splenomegaly
    c) Pharyngitis
    d) Tonsillitis
    e) Sinusitis

111. Laboratory findings may include all of the following **except:**
    a) Mild elevation of hepatic transaminases
    b) Increased heterophil antibody titer (IgM)
    c) Leukopenia is commonly noted.
    d) Lymphocytosis with atypical lymphocytes
    e) IgM antibody to viral capsid antigen

112. Therapy includes all of the following **except**:
    a) Rest
    b) Symptomatic therapy
    c) Antibiotic
    d) Corticosteroid may be used to reduce airway edema
    e) Stop athletic activity if spleen is enlarged to avoid splenic rupture

113. Most common organism:
    a) S. pneumoniae
    b) S. aureus
    c) S. epidermidis
    d) Pseudomonas
    e) Epstein-Barr Virus (EBV)

114. Complications include all of the following **except:**
    a) Splenic rupture
    b) Hepatic failure
    c) Guillain-Barre syndrome
    d) Reye syndrome
    e) Airway obstruction

115. Most dangerous complication:
    a) “Alice in Wonderland” syndrome
    b) Bell palsy
    c) Transverse myelitis

- d) Hemolytic anemia with a positive Coombs test
- e) Splenic rupture

A 1-day-old male child admitted to NICU from regular nursery with a history of vomiting five times for the last 24 hours. He was born by NSVD with Apgar scores of 8 and **9 at 1 and 5 minutes** respectively. His birth weight was 8 lb. Maternal history was unremarkable. Sepsis work up was done. Ampicillin and gentamicin were given.

Physical examination:
Temperature 98.6°F (37°C), pulse rate 140 per minute (normal), respiratory rate 36 per minute (normal), and blood pressure 60/30 (normal). Present weight is 7 lb 14 oz; the newborn has no obvious signs of dehydration; abdomen is soft and nontender; normal genitalia; rest of the examination is unremarkable.

Laboratory findings:
CBC (Complete Blood Count): WBC 10,600 cells/mm3, hemoglobin/hematocrit 15/45, Platelet 250,000, polymorphs 45%, lymphocytes 55%
SMA 6: Low Na (130 mmol/L), low Cl 92, slightly low K 3.4, normal BUN 16 mg/dL, normal creatinine 0.5, normal bicarbonate 27 mmol/L
Urinalysis: RBC 2/hpf (normal), WBC 3/hpf (normal), few epithelial cells (normal), hyaline cast 1/hpf (normal), specific gravity 1.010 (normal), absence of bacteria, RBC cast and WBC cast.
Blood Culture: pending result,
Renin level: elevated

116. Most confirmatory test to make the diagnosis:
    - a) Abdominal sonogram
    - b) Upper GI series
    - c) Barium enema
    - d) Abdominal X-ray
    - e) 17-hydroxyprogesterone level in serum

117. Definitive therapy includes:
    - a) Pyloromyotomy
    - b) Colostomy
    - c) Hydration
    - d) Surgical correction of malrotation
    - e) Hydrocortisone (glucocorticoid) + mineralocorticoid + sodium supplementation

118. Prenatal diagnosis can be made by:
    - a) CVS (chorionic villi biopsy) in 1st trimester
    - b) Cannot be made because the condition develops after birth
    - c) Sonogram reveals dilated large intestine
    - d) Sonogram reveals dilated stomach shadow
    - e) Sonogram reveals dilated small intestine

A 15 year old girl appears with short stature and primary amenorrhea. Chromosomal studies reveal 45, X. She is doing well in school.

119. The treatment for Turner syndrome includes all of the following **except:**
    - a) Gonads should be removed surgically.
    - b) A combination of oxandrolone (anabolic steroid) and growth hormone increases growth and final height.
    - c) Testosterone is not useful.
    - d) Estrogen therapy results in normal menstrual cycle.
    - e) High protein diet does not increase the growth.

120. Her renal sonogram reveals horseshoe kidney and an echocardiogram reveals bicuspid aortic valve. These findings may result in:
a) Liver failure
b) Diminished growth
c) Congestive cardiac failure
d) Renal failure
e) Adrenal failure

121. The girl went to a dentist for a dental procedure. The dentist should advise to the patient:
a) Not to perform the procedure at all.
b) No antibiotic prophylaxis
c) Oral antibiotic prophylaxis
d) Intravenous antibiotic prophylaxis
e) Intramuscular antibiotic prophylaxis

122. The girl wants to know about her final height potential. The physician should advise:
a) The height age should be more than bone age to achieve maximum height.
b) She will be taller than all her friends by hormonal therapy.
c) She will not grow at all despite therapy.
d) She will be taller than her both parents after hormonal therapy.
e) A patient with normal GH (growth hormone) and TSH (thyroid stimulating hormone) levels does achieve normal height.

123. Increased risk in offspring of a Turner Syndrome, if fertile:
a) Turner syndrome
b) Noonan syndrome
c) Down syndrome
d) Trisomy 18
e) Trisomy 13

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124. A 2-year-old boy was brought to the ER with a history of difficulty breathing and coughing for the last 2 days. His mother has asthma. Three other siblings do not have asthma. Mother denies any foreign body aspiration. Physical examination: afebrile, mildly tachypneic, wheezing is noted in the right chest, and the left lung sounds are clear. Chest X-ray reveals overdistended right lung, especially in expiratory film.
Appropriate management should be:
a) Bronchodilator
b) Pulmonary physiotherapy
c) Thoracotomy
d) CPR (cardio pulmonary resuscitation)
e) Removal of the bronchial foreign body

125. The most common enzyme deficiency in urea cycle defects:
a) Ornithine transcarbamylase (OTC)
b) Carbamylphosphate synthetase (CPS)
c) N-acetylglutamate synthetase
d) Arginosuccinic acid synthetase
e) Arginosuccinic acid lyase

126. A 2-year old girl appears in the ER with history of several episodes of vomiting and diarrhea for the last 48 hours. Mother denies history of fever and URI symptoms. The girl was eating regular foods and was drinking milk and juice prior to vomiting and diarrhea. Physical examination reveals absence of tears, sunken eyes, dry mucous membranes, capillary refill more than 3 seconds and mild hypotension. The child weighs 12 kg.
Serum electrolytes: Na = 135, K = 4.0, BUN = 30
The next appropriate intravenous fluid therapy should be:
a) 0.45% Nacl with 5% glucose water 100 mL/kg in emergency phase (1 hour)
b) 0.9% Nacl 50 mL/kg in emergency phase

c) Ringer lactate 50 mL/kg in emergency phase
d) 0.9% Nacl with 5% glucose water 100 mL/kg over 24 hours
e) 0.9% Nacl 20 mL/kg over 20 minutes

127. A mother of a 12-month-old boy wants to know about solid-food intake in infants. All of the following statements are true **except**:
a) Physician should recommend a definite amount of given food.
b) Solid foods should be introduced about 4-6 months of age
c) Avoid excessive salt intake
d) Avoid food additives
e) Parents should not introduce new foods more often than every 1-2 weeks

128. A 12-year-old child died suddenly. He was taking which of the following medication:
a) Phenobarbital
b) Phenytoin
c) Tricyclic antidepressant
d) Lorazepam
e) Propranolol

129. A 25-year-old mother is pregnant. She had one child who was born with congenital heart disease. **The risk of recurrence in this pregnancy:**
a) 0.8%
b) 1% to 2%
c) 20% to 30%
d) 2% to 6%
e) 25% to 50%

130. The maximal activity of lactase enzyme appears in intestine of the fetus about:
a) 14th week
b) 20th week
c) 24th week
d) 32th week
e) 36th week

131. Beckwith-Wiedemann syndrome has the following features **except:**
a) Omphalocele
b) Macrocephaly
c) Macrosomia
d) Visceromegaly
e) Macroglossia

132. Premature babies achieve catch-up growth (weight) about:
a) 6 months
b) 12 months
c) 18 months
d) 24 months
e) 36 months

133. Management of a patient older than 1 year of age with a foreign body aspiration. All of the following statements are true **except:**
a) First, a blind sweep of mouth should be performed
b) Place them on their back
c) Rescuer kneels next to patient
d) Perform 6 to 10 abdominal thrust using heel of one hand, pushing upward and inward from midabdomen, midway between umbilicus and rib cage. If this fails, victim’s mouth should be opened by using tongue-jaw lift and a visualized foreign body should be removed.

e) Rescue breathing should be repeated before next abdominal thrust.

134. A 6-year-old boy was brought to the ER with history of severe diarrhea and vomiting for the last 3 days. He is lethargic. Father denies a history of fever and URI symptoms. The boy was completely asymptomatic prior to this episode. Mother stated that he went to his friends house 3 days ago. Physical examination reveals severe hypotension (40/20), tachycardia (heart rate 140 per minute), normal temperature 98.6°F (37°C), respiratory rate 22 per minute (normal), sunken eyes, no tears, dry mucous membrane, and hypoactive. The child weighs 24 kg.
Serum electrolytes: Na = 135, K = 3.5, BUN = 45
The next appropriate intravenous fluid therapy should be:
a) 0.45% NaCl with 5% glucose water 20 mL/kg over 1 hour in emergency phase.
b) 0.9% NaCl with 5% glucose water 100 mL/kg over 30 minutes in emergency phase.
c) Ringer lactate 50 mL/kg over 30 minutes
d) Ringer lactate 20 mL/kg over 20 minutes, if no improvement, give another 20 mL/kg over 20 minutes.
e) 0.9% Nacl with 5% glucose water 100 mL/kg over 6 hours

135. A newborn male weighs 7 lb. The boy will be 14 lb:
a) 5 months
b) 6 months
c) 7 months
d) 9 months
e) 12 months

136. Most common congenital foot deformity:
a) Talipes equinovarus
b) Developmental dysplasia of hip
c) Metatarsus adductus
d) Metatarsus abductus
e) Wide separation of first and second toes

137. A 9-year-old boy was brought to the ER after head injury. Head CT scan reveals basillar skull fracture. All of the following clinical presentations are true **except:**
a) Hemotympanum
b) CSF otorrhea
c) Battle sign
d) CSF rhinorrhea
e) Clear discharge from the ear

138. Most common clinical manifestation of congenital rubella:
a) Cataract
b) PDA
c) IUGR (intrauterine growth retardation)
d) Pulmonic stenosis
e) Sensorineural deafness

139. Management of a patient younger than 1 year of age with a foreign body aspiration. First to last sequence should be:
a) Abdominal thrusts, back blows, mouth open and remove foreign body.
b) Chest thrusts, back blows, mouth open and remove foreign body.
c) Back blows, chest thrusts, mouth open and remove foreign body.
d) Back blows, abdominal thrusts, mouth open and remove foreign body.
e) Abdominal thrusts, back blows, mouth open and remove foreign body.

140. The following statements are true in Klinefelter syndrome **except:**
a) Maternal age is advanced in most cases
b) Extra X is contributed more by mother than father

c) Behavioral or psychiatric problem may occur
d) Infertility is common
e) Higher incidence of breast cancer

141. The following statements are true in diabetes insipidus **except:**
a) Increased secretion of vasopressin
b) Damage of neurohypophyseal tract
c) Craniopharyngioma can cause diabetes insipidus when it is very large.
d) Gene is on chromosome 20
e) Occurs in neonatal asphyxia

142. A 17-year-old boy was brought to the ER by his friend in early Saturday morning. He was passing several loose stools for the last 6 hours. Physical examination reveals heart rate 45/minute, increased salivation, and constricted pupils. **Most likely cause**:
a) Atropine
b) Food poisoning
c) Tricyclic antidepressant
d) Cocaine
e) Acetylcholine

143. A child appears pale. The diagnosis of iron deficiency anemia was made. The correct hematologic findings should be:
a) Hemoglobin (10), MCV (70), reticulocyte (10%)
b) Hemoglobin (15), MCV (78), reticulocyte (2%)
c) Hemoglobin (8), MCV (45), reticulocyte (9%)
d) Hemoglobin (7.5), MCV (65), reticulocyte (1.9)
e) Hemoglobin (7), MCV (80), reticulocyte (16%)

144. A 10-year-old girl appears with pain in the right ear and right retroorbital area with headache for the last 24 hours. She denies history of trauma. Physical examination reveals right otitis media and inward deviation of the right eye.Most likely diagnosis:
a) Gradenigo’s syndrome
b) Brain hemorrhage
c) Brain tumor
d) Right eye trauma
e) Retroorbital cellulitis in the right eye

145. Identify the true statement about omphalocele:
a) Not covered with sac
b) Normal abdominal cavity size
c) Appears from the right side of umbilicus
d) May be associated with trisomy
e) Surgery is not required in a small omphalocele

146. All of the following statements about enuresis are true **except:**
a) Normal up to 6 years of age
b) If both parents have a history of enuresis, child has a 77% chance of developing enuresis.
c) Pediatrician should inquire about stressful events in all patients with secondary enuresis.
d) Nocturnal enuresis is more common in boys than girls.
e) Urography and cystostomy should **not** be performed unless an organic lesion is suspected.

147. A 13-year-old boy appears in ER with abnormal movements of extremities, trunk, and facial muscles. His mother stated that he has been taking a medicine prescribed by the physician for the last 2 weeks. The medicine most likely causes these clinical signs:
a) Phenytoin
b) Haloperidol

- c) Lorazepam
- d) Phenobarbital
- e) Diazepam

148. Identify the true statement about SLE (systemic lupus erythematosis):
   - a) Type I is the most common form of lupus nephritis.
   - b) Butterfly rash and Raynaud phenomenon are absent.
   - c) Anti-DNA is more specific and reflects degree of disease activity.
   - d) Anti-Smith (sm) antibody measures disease activity
   - e) Positive ANA (antinuclear antibody) is more specific and measures disease activity.

149. A 2-year-old girl appears in clinic for a routine check-up. She does not like to eat at all but she loves potato chips. The best measure to check her nutritional status:
   - a) Head circumferance
   - b) Length
   - c) Weight
   - d) Weight for height
   - e) Skin fold thickness

150. VDRL tests were performed on 33 patients to rule out syphilis. 5 patients had positive VDRL test results and they were diagnosed with syphilis (A). 10 patients had negative VDRL test results and they were diagnosed with syphilis (C). 3 patients had positive VDRL test results but they were not diagnosed with syphilis (B). The remaining 15 patients had negative VDRL test results and they were not diagnosed with syphilis (D).
   Overall accuracy:
   - a) 60.6%
   - b) 33%
   - c) 83%
   - d) 65%
   - e) 94.9%

151. A 18-year-old-girl has PKU (phenylketonuria). She got married and wanted to have a baby. She is asymptomatic. **She should begin low phenylalanine diet:**
   - a) After pregnancy test results
   - b) After the baby is delivered
   - c) Before conception
   - d) Just before the delivery
   - e) During lactation

152. A 7-year-old boy is diagnosed with small intestinal obstruction. The surgeon wants to correct all of the following before surgery **except:**
   - a) Dehydration
   - b) Anemia
   - c) Acidosis
   - d) Reduce fever
   - e) Vomiting

153. The true statement about anorexia nervosa:
   - a) Occurs in female of lower socioeconomic class only
   - b) Growth hormone is elevated
   - c) Sepsis is the most common cause of death
   - d) Hair grows during overfeeding state
   - e) Hyperchloremic acidosis is common.

154. A girl appears with white foreclock. The girl should be referred for the following investigation:
   - a) Renal sonogram
   - b) EKG
   - c) Audiometry

d) Head CT scan
e) Opthalmologic examination

155. The true statement about hematuria:
a) Less than 5 RBC per high power field
b) Hematuria means renal disease
c) Hematuria with proteinuria indicate kidney source
d) Does not occur in fever, exercise, and gastroenteritis
e) Does not occur in respiratory infection and viral infection

156. A newborn CBC reveals hemoglobin (11.0), MCV (106), WBC (12,600), platelet (296,000), and reticulocyte (2%). **Most likely diagnosis:**
a) Anemia of prematurity
b) Iron deficiency anemia
c) G6PD deficiency
d) Normal
e) ‘ABO’ incompatibility and Coombs positive

157. A 7-year-old boy is diagnosed with diabetes mellitus. His mother wants to know the ideal distribution in calories:
a) 33% breakfast, 33% lunch, 34% dinner
b) 25% breakfast, 25% lunch, 50% dinner
c) 20% breakfast, 20% lunch, 60% dinner
d) 10% breakfast, 20% lunch, 25% dinner, 15% each at midmorning, midafternoon, and evening snacks.
e) 20% breakfast, 20% lunch, 30% dinner, 10% each at midmorning, midafternoon, and evening snacks.

158. A group of adolescent went to a cruise ship and develop diarrhea. Other people in the ship were also affected. Most common organism responsible for diarrhea:
a) Rotavirus
b) Shigella
c) Salmonella
d) Norwalk virus
e) S. aureus

159. Breast feeding is contraindicated in all of the following **except**:
a) Herpetic lesions in mouth
b) Severe psychoses
c) HIV
d) Herpetic lesion in breasts
e) Active tuberculosis

160. Normal caloric contents in each gram of protein, carbohydrate, and fat:
a) 4 Kcal protein, 4 Kcal carbohydrate, 4 Kcal fat
b) 6 Kcal protein, 6 Kcal carbohydrate, 9 Kcal fat
c) 4 Kcal protein, 5 Kcal carbohydrate, 8 Kcal fat
d) 4 Kcal protein, 4 Kcal carbohydrate, 12 Kcal fat
e) 4 Kcal protein, 4 Kcal carbohydrate, 9 Kcal fat

161. A 16-year-old male athlete likes Gatorade liquid drinks. His friends like Poweraid drinks. He wants to know the best fluid therapy during sports:
a) Gatorade
b) Poweraid
c) Beer
d) Pure, plain, cold water
e) Pepsi

162. A 18-year-old girl usually consumes 2,100 calories per day. She becomes pregnant. What is the appropriate caloric requirement per day:
   a) 2,100
   b) 2,200
   c) 2,300
   d) 2,400
   e) 3,000

163. A 4-year-old boy appears with severe watery diarrhea and recurrent, vague, crampy mid-abdominal pain for the last 2 days. The boy looks healthy. His mother is unsure of any obvious relation with milk ingestion. Physical examination reveals abdominal distension, flatulance, and borborygmi.
   Most likely diagnosis:
   a) Lactase deficiency
   b) Sucrase deficiency
   c) Galactase deficiency
   d) Sucrase-isomaltase deficiency
   e) Glucose-galactose malabsorption

164. A pregnant mother took valproic acid in early first trimester. She was not sure about her pregnancy at that time. She is worried. **Most likely complication:**
   a) VSD
   b) Limb defects
   c) Spina bifida
   d) Hydrops fetalis
   e) Hypoplastic nose

165. A 24-week gestational age premature infant (550 grams birth weight) developed BPD (bronchopulmonary dysplasia). She has moderate to severe BPD changes in lungs. At present, the girl is 2 months old and still requiring oxygen by nasal canula. Mother wants to know the usual time of recovery in BPD patients:
   a) 1 – 3 months
   b) 3 – 6 months
   c) 6 – 12 months
   d) 12 – 15 months
   e) 15 – 24 months

166. A full-term newborn male child developed watery stools after breast feeding. The breast milk was discontinued. He also developed watery stools with Similac and Enfamil. Physical examination reveals bloated abdomen. The infant formulas were stopped. Examination of a stool specimen reveals sugar, acidic pH, and reducing substance. **Most likely diagnosis:**
   a) Glucose-galactose malabsorption
   b) Lactase deficiency
   c) Sucrase deficiency
   d) Sucrase-isomaltase deficiency
   e) Isomaltase deficiency

167. A 6-month-old female infant appears with watery diarrhea and failure to gain weight. She is receiving soy formula. The infant does not have recurrent abdominal pain. The stool specimens do **not** contain reducing substance. Physical examination reveals bloated abdomen. **Most likely diagnosis:**
   a) Lactase deficiency
   b) Sucrase-isomaltase deficiency
   c) Glucose-galactose malabsorption
   d) Glucose malabsorption
   e) Galactose malabsorption

168. A 12-year-old boy was brought to the ER after a car accident. Physical examination reveals a distended abdomen and tenderness in the left upper quadrant. The surgeon suspected splenic injury. **The preferred method of investigation:**
a) X-ray of the abdomen
b) CT scan of the abdomen
c) Right lateral decubitus film
d) Left lateral decubitus film
e) Nuclear scan

169. All of the following statements are true about the management of pain in a burn patient **except:**
a) Morphine should be discontinued before extubation.
b) Midazolam is used to reduce anxiety.
c) Benzodiazepine should be reduced to about ½ of dose over 24-72 hours before extubation.
d) Rapid weaning from benzodiazepine can cause seizures.
e) Morphine is used as PCA (patient-controlled analgesia) in older patients.

170. A 3.5 kg full-term male newborn was admitted to NICU for tachypnea. The boy was delivered by NSVD with Apgar scores 7 and 8 at 1 and 5 minutes respectively. Physical examination reveals hypotension (BP 38/25), subcutaneous emphysema, tachypnea (respiration 70-80 per minute), and engorged neck veins. **The true statement about this clinical condition:**
a) Resolves spontaneously
b) Diagnosis is not confirmed by X-ray.
c) Most patients are symptomatic.
d) Chest CT scan is indicated.
e) Echocardiogram can confirm the diagnosis.

171. A 6-year-old girl appears in the ER with rashes over the lower extremities and buttocks for the last 24 hours. She had fever and malaise for the last 3 days. She also stated the right knee and the left ankle pain. Physical examination reveals erythematous maculopapular lesions on skin. **The true statement about this clinical condition:**
a) Low platelet count
b) Reduced IgA and IgM
c) Biopsy of skin lesions confirms the diagnosis of vasculitis
d) Intussuception is present in all cases.
e) Hematuria and proteinuria are present in all cases.

172. A 16-year-old girl was brought to the ER. She went to a party last night, and today in the morning she could not arise from bed and complained of weakness in both lower extremities as well as no vision in both eyes. Her vital signs are normal. Physical examination reveals **a normal neurological examination**, normal pupillary reflex to light. CBC = normal; CSF = normal.
Most likely diagnosis:
a) Botulism
b) Guillain-Barre syndrome
c) Meningitis
d) Brain tumor
e) Conversion disorder

173. A 2-year-old boy ingested some unknown medication. He vomited once. His mother should:
a) Call his pediatrician before giving ipecac.
b) Call poison control center.
c) Call pharmacist because he is a nice and smart guy.
d) Call her husband because he managed a similar case for his nephew.
e) Call hospital social worker because she told her to call if any problem.

174. A 9-year-old girl was brought to the ER with history of fever 106.4°F (41.5°C) for the last 12 hours. **The least likely cause of fever in this patient:**

a) Infection
b) Malignant hyperthermia
c) Malignant neuroleptic syndrome
d) Drug fever
e) Heat stroke

175. A child developed hypothermia (temperature 95°F or 35°C) for the last 6 hours. Hypothermia could be due all of the following **except:**
a) Hypothyroidism
b) Overuse of antipyretics
c) Cold exposure
d) Overwhelming sepsis
e) Hypothalamic disorder

176. A 4-year-old girl was brought to the ER with history of diarrhea for the last 5 days. She had 8 to 9 watery stools per day. She has been drinking home-made liquid. She has no fever. Mother denies history of vomiting. Physical examination reveals irritability, doughy skin, but absence of obvious clinical signs of dehydration, The child weighs 16 kg. SMA6: Na = 160, K= 3.6, BUN = 32. **The next appropriate intravenous fluid therapy should be:**
a) D_5 water plus Nacl and $NaHCO_3$ total (25 mEq/L) 20 mL/Kg over 1 hour in emergency phase.
b) D_5 water should be given over 48 hours; total 200 mL/Kg, no sodium should be added to the fluid.
c) D_{10} water plus Nacl (40 mEq/L) should be given over 24 hours, total 100 mL/Kg.
d) D_5 water plus Nacl and $NaHCO_3$ (25 mEq/L) should be given over 48 hours; calculate 10% dehydration.
e) D_5 water plus $NaHCO_3$ should be given over 48 hours; calculate 5% dehydration.

177. A 1-month-old girl was brought to a clinic with history of diarrhea (6 to 7 stools per day) for the last 3 days. She is drinking breast milk. The girl vomited once 2 days ago. Physical examination reveals alertness, restlessness, normal capillary refill time (less than 2 seconds), and normal heart rate. The interpretation is that girl is very mildly dehydrated due to weight loss. **The next appropriate management should be:**
a) Discontinue breast breasting and start infant formula feeding.
b) Continue breast feeding plus infant formula feeding.
c) Oral rehydrating solution for 1 to 2 hours, before resuming breast-feeding.
d) NPO plus intravenous hydration.
e) Discontinue breast feeding and start formula feeding plus intravenous hydration.

178. A full-term SGA (small for gestational age) male newborn was admitted to NICU. Maternal history was unremarkable. Physical examination reveals height, weight, and head circumferance less than 5th percentile for his gestational age. CBC reveals thrombocytopenia (platelet count 60,000). Head CT scan reveals periventricular calcifications. **The most definitive diagnostic study for congenital CMV infections:**
a) IgM – CMV
b) IgG – CMV
c) IgA – CMV
d) Blood culture for CMV
e) Urine culture for CMV

179. The pulse rate normally increases with fever. The pulse rate remains low in the presence of fever in all of the following conditions **except:**
a) Typhoid fever
b) Malaria
c) Brucellosis
d) Leptospirosis
e) Drug fever

180. All of the following statements are true about pertussis **except:**
a) Both disease and immunization against pertussis provides complete and lifelong immunity against disease or reinfection.

b) Erythromycin for 14 days is drug of choice.
c) Erythromycin can cause hypertrophic pyloric stenosis.
d) A severely ill infant may appear completely normal between episodes.
e) Prophylactic antibiotic is not recommended for exposed health care workers.

181. The resident physician performed a routine physical examination of a full-term infant. The examination reveals bifid uvula. The rest of the physical examination was unremarkable. Attending physician told the resident physician to look for an associated anomaly:
a) Cardiac
b) Renal
c) Ear
d) Eye
e) Submucous cleft

182. A 13-year-old girl came for routine physical examination. Her breasts and areolae are enlarged, but areolae and nipples did **not** form secondary mound. Her pubic hair is dark, **slightly** coarse, beginning to curl, located on mons pubis. Her development should correspond with Tanner stage (sex maturity rating):
a) 1
b) 4
c) 2
d) 3
e) 5

183. A 15-year-old girl came for routine physical examination. Her breast and areolae are enlarged, and areolae and nipples form secondary mound but nipples do **not** project. Her pubic hair is coarse, curly, abundant, but absence in medial side of the thigh. Her development should correspond with Tanner stage:
a) 1
b) 4
c) 2
d) 3
e) 5

184. A 17-year-old girl came for routine physical examination. Her breasts are mature, nipples do project, and areolae are part of general breast contour. Her pubic hair spread to medial side of the thigh and forms feminine triangle. Her development should correspond to Tanner stage:
a) 1
b) 4
c) 2
d) 3
e) 5

185. A 11-year-old girl came for routine physical examination. Her breasts and papillae form a small mound; areolae are increased in diameter. Her pubic hair is sparse, uncurly, lightly pigmented, and located in medial border of labia. Her development should correspond with Tanner stage:
a) 1
b) 4
c) 2
d) 3
e) 5

186. A 10-year-old girl appears in the clinic with history of cough and purulent nasal discharge for the last 3 weeks. She used over the counter cough medicine but the symptoms persist. She has been coughing in school as well as at night. Physical examination reveals normal temperature, bilateral erythematous nares with yellowish nasal discharge. She denies tenderness over the sinuse areas. **Most likely diagnosis:**
a) Sinusitis
b) Tonsillopharyngitis

c) Allergic rhinitis
d) Foreign body
e) URI

187. A 1-month-old male appears with bilateral enlargement of breasts. His birth history was unremarkable. Physical examination is normal except enlarged breasts. **The appropriate next step should be:**
a) Estrogen level
b) Leave the baby alone, only reassurance
c) Progesterone level
d) Abdominal sonogram
e) Chromosome study

188. A full-term baby was born by forcep delivery with Apgar scores 5 and 7 at 1 and 5 minutes respectively. Physical examination reveals absence of left retinal reflex. **Most likely diagnosis:**
a) Retinal hemorrhage
b) Retinal detachment
c) Cataract
d) Bleeding inside anterior chamber of left eye
e) Corneal trauma

189. A 16-year-old obese boy wants to reduce his weight. All of the following methods he tried. **The most difficult way to comply:**
a) Use dietary pills for 1 month
b) Starvation for a few days
c) Exercise for 2 months
d) Exercise and diet for 3 months
e) Reduce caloric intake for at least 6 months to 1 year

190. A 3-day-old newborn infant was diagnosed with congenital cyanotic heart disease. Cardiac surgery was performed. The cardiac output was decreased after surgery. **The clinical manifestations suggestive of decreased cardiac output:**
a) Tachycardia
b) Bradycardia
c) Hypertension
d) Hypotension and prolonged capillary refilling time.
e) Hypotension and normal capillary refilling time.

191. A non-clinic pregnant woman’s VDRL titer was 1:16. The VDRL test was performed after the baby was delivered. The mother was not aware of any treatment for her syphilis. The baby’s VDRL titer was 1:32, FTA – ABS IgM was negative, and FTA – ABS IgG was positive. The mother’s FTA – ABS IgG was positive. **The next appropriate step in management:**
a) Infant should be treated immediately without further investigation.
b) Infant does not need any therapy and no further investigation is indicated.
c) CSF VDRL and long bone X-ray should be done to rule out syphilis.
d) Mother should be treated but the infant does not need therapy.
e) Infant should be watched for clinical signs of syphilis.

192. Which of the following is most common in general population?
a) Cystic fibrosis
b) Spina bifida
c) Cerebral palsy
d) Epilepsy
e) Mental retardation

193. A 5-year-old girl went to a clinic for routine check up. CBC test results reveal hemoglobin (12.0), hematocrit (36.0), MCV (55), and reticulocyte count (2%). **Most likely diagnosis:**

a) Iron deficiency anemia
b) Folic acid deficiency
c) Thalassemia major
d) Thalassemia minor
e) Normal

194. A 6-year-old girl appears with malodorous vaginal discharge for the last 7 days. Physical examination reveals yellowish vaginal discharge but there is no evidence of trauma. **Most likely diagnosis:**
a) Vaginal foreign body
b) Candida infection
c) Trichomonas infection
d) Chlamydial infection
e) S. aureus infection

195. The onset of routine screening for hypertension should be:
a) 6 months
b) 12 months
c) 3 years
d) 6 years
e) 12 years

196. A 6-year-old boy came to a clinic for routine check-up. Physical examination reveals that the right leg is bigger than left leg. **The next step in investigation:**
a) X-ray both legs
b) Bone scan
c) Hip ultrasonography
d) Doppler study of femoral artery
e) Abdominal ultrasonography

197. A 1-month-old severe preterm infant developed two apneic episodes. Physical examination reveals heart rate more than 165 per minute, respiratory rate 30 per minute, temperature 98.6°F (37°C), and paleness. CBC test results reveal hematocrit 20. The infant is receiving vancomycin and cefotaxime to rule out sepsis. **The next step in management:**
a) P-RBC transfusion
b) IV hydration
c) Aminophylline
d) Atropine
e) Whole blood transfusion

198. A 10-year-old girl appeared in the ER with acute asthma attacks. The girl improved with inhalation bronchodilator therapy. She usually receive oral prednisone at home. **The next step in management:**
a) Increase oral prednisone doses
b) Start inhaled steroid and discontinue oral steroid
c) Resume theophylline along with oral steroid
d) Reduce oral prednisone doses
e) Give both inhaled and oral steroids

199. Complication of nasojejunal feeding:
a) Bilious vomiting
b) Diarrhea
c) Peritonitis
d) Perforation
e) Necrotizing enterocolitis

200. A 17-year-old boy appears with testicular tumor. **Most likely diagnosis:**
a) Fibroma

b) Dermoid
c) Lipoma
d) Metastatic mass
e) Germ cell tumor

201. The medication may cause sensorineural hearing loss in children:
a) Penicillin
b) Phenytoin
c) Gentamicin
d) Ampicillin
e) Phenobarbital

202. The cranial nerves responsible for sucking:
a) 3, 5, 7 th
b) 3, 9, 12 th
c) 5, 7, 9 th
d) 5, 7, 12 th
e) 9, 10, 12 th

203. Most common cause of headache in children:
a) Stress
b) Myopia
c) Sinusitis
d) Migraine
e) Increased intracranial pressure

204. The cranial nerves responsible for swallowing:
a) 9, 10, 11 th
b) 9, 10, 12 th
c) 10, 11, 12 th
d) 8, 9, 10 th
e) 5, 7, 12 th

205. Most common time for scoliosis to occur in adolescent female:
a) 10 years
b) 11 years
c) 12 years
d) 13 years
e) 15 years

206. Most common time for scoliosis to occur in adolescent male:
a) 12 years
b) 13 years
c) 14 years
d) 15 years
e) 16 years

207. A mother of a female infant switched her infant’s formula from a Similac iron-fortified formula to a Similac low iron formula due to her daughter’s history of constipation. She passed stool every other day. **The next appropriate step should be:**
a) Add oral iron supplement
b) Give glycerine suppository
c) Give soy-based formula
d) Give high caloric formula
e) Resume Similac iron-fortified formula

208. Treatment for Duchenne muscular dystrophy includes all of the following **except:**
a) Fluorinated steroid is indicated.
b) Digoxin is used in cardiac failure.
c) Calcium and fluoride are given
d) Physiotherapy is useful but cannot prevent contracture.
e) Antibiotics are used in pulmonary infections.

209. A full-term newborn was admitted to NICU with mild respiratory distress. Amniotic fluid was meconium stained. Apgar scores were 7 and 8 at 1 and 5 minutes respectively. The newborn was placed under 40% oxyhood. ABG reveals pH 7.34, Pco_2 39, Po_2 80, base deficit –3.4. Chest X-ray reveals hyperinflation and fluid in the fissure. **Most likely diagnosis:**
a) Meconium aspiration
b) Normal lungs
c) Pleural effusion
d) Chylothorax
e) TTNB (transient tachypnea of the newborn)

210. In a normal condition, water requirement in a 3-day-old newborn **(mL/kg/day):**
a) 40 – 60
b) 60 – 80
c) 80 – 100
d) 100 – 120
e) 120 – 150

211. A severely premature (26 weeks gestational age) newborn developed TPN (total parenteral nutrition) induced cholestasis.
TPN-induced cholestasis is most likely due to:
a) Multifactorial
b) Vitamin B
c) Vitamin D
d) Vitamin K
e) Amino acids

212. A 12-year-old girl appears with fever 103.3°F (39.6°C), headache, purulent nasal discharge, and eye swelling for the last 4 to 5 days. Physical examination reveals bilateral yellowish nasal discharge, more in the left than right, and left eye swelling. **Most likely diagnosis:**
a) Allergic rhinitis
b) Foreign body
c) Nasal polyp
d) Orbital cellulitis
e) Sinusitis

213. A 1-month-old full-term infant is receiving breast milk only. **The infant should receive supplementation of:**
a) Iron
b) Vitamin D
c) Protein
d) Vitamin B_{12}
e) Vitamin E

214. A full-term baby was born with ambiguous genitalia. Maternal amniocentesis reveals 46, XX. Physical examination reveals a phallus measuring 2.0 cm, urethral opening just below the phallus, and gonads are not palpable. SMA_6 = normal; elevated 17-hydroxy progesterone level. **Most likely diagnosis:**
a) Normal female
b) Adrenal tumor
c) Turner syndrome variant
d) Mixed gonadal dysgenesis

e) 21-hydroxylase deficiency

215. A child had been suffering from asthma for the last 2 years. The condition worsens since his parents purchased a dog and a cat. **Most likely cause for worsening asthma:**
a) Only dog can produce asthma
b) Only cat can produce asthma
c) None of them produce asthma
d) Both of them produce asthma
e) Properly washed animals and their company is good for asthma patient.

216. A 3-year-old girl was brought to the ER with history of excessive drooling for the last 2 hours. Mother denies history of fever and URI symptoms. The child was drinking well and was playful prior to this episode. Physical examination reveals normal tonsils and pharynx. Chest X-ray reveals a radioopaque foreign body in the esophagus. **The next step in management:**
a) Reassure the family, everything will be fine without intervention
b) Give some solid food which will dislodge the foreign body from esophagus to the stomach.
c) Endoscopic removal is indicated.
d) Give ipecac to induce vomiting
e) Give muscle relaxant which will relax esophageal musculature.

217. A 2-year-old girl is mentally retarded. Initial clinical sign of mental retardation:
a) Breaking home appliances
b) Excessive drooling
c) Delayed speech
d) Delayed walking
e) Sleeping most of the time

218. The true statement about Prader-Willi syndrome:
a) Hyperglycemia is not due peripheral resistance to insulin
b) Chromosome deletion is located in the long arm of chromosome 15
c) The deleted chromosome is maternally derived.
d) Hypertonia is noted at birth.
e) Hergonadism is a clinical finding.

219. If one student develops streptococcal pharyngitis in a class, the recommendation for other students should be:
a) The student who sits next to the student who got infected should receive penicillin therapy.
b) The throat culture should be obtained from students who developed symptoms and signs of streptococcal pharyngitis.
c) The class should be closed for a few days.
d) Everybody should receive penicillin because the final examination is due next week.
e) Teacher should be treated along with students.

220. A 5-year-old girl appears in a clinic with history of involuntary voiding in bed at night for the last 3 days. Her mother is very upset. She had similar problems 1 year ago. She likes her school. She is a happy girl. **The next step in management:**
a) Tell her that she will sleep in the sofa if she urinates in the bed.
b) Tell her that she will get a toy if she does not void in the bed.
c) Start a small dose of DDAVP or imipramine therapy
d) Psychiatric consult
e) Urinalysis

221. A child is diagnosed with allergic rhinitis. He is allergic to pollen and dust mites. The child **may develop** in future:
a) Anaphylactic reaction to immunization
b) Allergy to medication
c) Asthma

d) Otitis media
e) Nasolacrimal duct obstruction

222. A 12-year-old boy was diagnosed with sarcoidosis. **The definitive diagnostic test:**
a) Sputum culture
b) Liver function test
c) Pulmonary function test
d) Opthalmologic examination
e) Tissue biopsy

223. A newborn boy appears with anemia and jaundice. Physical examination reveals severe jaundice and absence of splenomegaly. The serum bilirubin level is 18 mg/dL. CBC reveals hemoglobin 8 g/dL, hematocrit 24 g/dL, WBC 12,000, platelet 300,000, and reticulocyte 16%. Peripheral smear reveals spherocytes. Maternal past history reveals splenectomy. **Most likely diagnosis**:
a) ‘ABO’ hemolytic anemia
b) Hereditary elliptocytosis
c) Hereditary spherocytosis
d) G6PD deficiency
e) Rh-incompatibility

224. Most common organism in cat bite wound:
a) S. aureus
b) S. epidermidis
c) Pseudomonas
d) Pasteurella multocida
e) Listeria

225. The absorption of triglyceride in intestine:
a) MCT (medium chain triglyceride) is better absorbed than LCT (long chain triglyceride) in small intestine.
b) LCT is better absorbed than MCT.
c) MCT and LCT are equally absorbed.
d) LCT is better absorbed in large intestine.
e) MCT is better absorbed in large intestine.

226. A normal 5-year-old child can do:
a) Can copy a triangle
b) Can copy a diamond
c) Name 7 colors
d) Count 20 pennies correctly
e) Repeat sentence of 20 syllables

227. A 11-year-old boy came for a routine physical examination. The examination reveals enlarged, pink scrotum; slightly enlarged penis; pubic hair is scanty, long, slightly pigmented. **Most likely sex maturity rating (SMR) or Tanner stage:**
a) 1
b) 2
c) 3
d) 4
e) 5

228. A 14-year-old boy came for a routine physical examination. He is short in stature. The examination reveals large testes, longer penis, and pubic hair is darker, started to curl, small in amount. **Most likely Tanner stage:**
a) 1
b) 2
c) 3
d) 4

e) 5

229. A 16-year-old boy came for a routine physical examination. He is slim. The examination reveals larger, darker scrotum; length and breadth of penis are enlarged; coarse and curly pubic hair; pubic hair is less than that of an adult. **Most likely Tanner stage:**

a) 1
b) 2
c) 3
d) 4
e) 5

230. A 17-year-old boy appears like a 14-year-old. Physical examination reveals large testes, large penis, and pubic hair is large quantity and spread to the medial side of the thigh. **Most likely Tanner stage:**

a) 1
b) 2
c) 3
d) 4
e) 5

231. A 6-year-old boy was brought to the ER with history vomiting and diarrhea for the last 6 days. He vomited 3 to 4 times per day and he passed watery stools 7 to 8 times per day. He has no fever. Mother stated that he did not eat outside food. Despite vomiting he had been drinking sips of water, soda, and other liquids. He preferred water. Physical examination reveals capillary refill 2 seconds, normal BP 88/48, tachycardia (heart rate 120 per minute), sunken eyes, no tears, and dry mucous membranes. The boy weighs 20 kg.
SMA6: Na = 120, Cl = 80, K = 4.0, BuN = 25, base deficit –12.0
The next appropriate fluid therapy should be:

a) D_5 water plus Nacl correction (200 mEq of Nacl) plus maintenance Nacl (80 mEq) should be given over 6 hours.
b) 3% Nacl solution should be given over 2 hours.
c) 1.5% Nacl solution should be given over 24 hours.
d) 0.9% Nacl solution (100 mEq) over 12 hours.
e) D_5 water plus Nacl correction (180 mEq) plus Nacl maintenance (80 mEq/day) should be given over 24 hours; add K acetate after urine output.

232. A full-term newborn is admitted to NICU from a regular nursery for poor feeding and mild tachypnea. Physical examination reveals temperature 96.8°F, respiratory rate 66/minute, BP 55/35; equal air entry in both sides of lungs; no murmur; no hepatosplenomegaly; salmon-colored rash over the trunk. CBC reveals WBC count 35,600/Cu mm, 80% polymorphs, 8% bands, 8% monocytes, 4% lymphocytes, hemoglobin 13, hematocrit 39, platelet 165,000. CSF reveals WBC count 176/Cu mm, 80% polymorphs, 20% lymphocytes, protein 250 mg/dL, glucose 22 mg/dL.
CSF Gram stain: Gram positive rod like diptheroid.
Chest x-ray: rule out left lung infiltrate.
CSF culture: pending results.
Most likely diagnosis:

a) Listeria monocytogenes
b) Group B Streptococcus
c) S. aureus
d) E. coli
e) Group A Streptococcus

233. A 12-year-old boy appears less than 5 th percentile in height but 25 th percentile in weight. His father is 5 feet tall and his mother is 4 feet 7 inches tall. **Most likely cause of short stature:**

a) Hypopituitarism
b) Hypothyroidism
c) Hypoadrenalism
d) Familial short stature

e) Growth hormone deficiency

234. A 16-year-old boy was brought to the ER with history head injury due to a car accident. He opened his eyes to voice, confused, and was able to localized his pain. Glassgow coma scale was 12. He vomited once in the ER. **The next appropriate step in management:**
a) Skull X-ray
b) Head CT scan
c) Spinal tap
d) No investigation is indicated
e) Intubate the boy immediately

235. A 15-year-old girl appears in a clinic with history of low-grade fever, cough, and night sweats for the last 1 month. Mother denies any history of tuberculosis. Physical examination reveals normal lung sounds bilateral. Chest X-ray reveals hilar lymph nodes enlargement with calcification. **The next step in management:**
a) Lung scan
b) Lung CT scan
c) A tuberculin skin test
d) Throat culture
e) Sinus X-ray

236. A 9-year-old child appears in a clinic with history of muscle pain. Physical examination reveals muscle and bone tenderness; bowed legs. Serum calcium 6.5 mg/dL, phosphorus 10.0 mg/dL, alkaline phosphatase 1020 U/L, parathyroid hormone (PTH) 250 pg/mL. Bone X-ray reveals widening of metaphysis and subperiosteal resorption. **Most likely diagnosis:**
a) Renal osteodystrophy
b) Primary hyperparathyroidism
c) DiGeogre syndrome
d) Vitamin D-dependent rickets
e) Nutritional rickets

237. A 5-year-old girl appears in the ER with fever and mild respiratory distress for the last 6 hours. She has sickle cell disease. She received all prophylactic vaccinations (e.g., pneumococcal, influenza) plus continuing penicillin prophylaxis. Chest X-ray reveals right middle lobe and lower lobe infiltrates. The girl is receiving oxygen by mask. **Most likely organism causing pneumonia:**
a) S. aureus
b) Pseudomonas
c) E. coli
d) RSV
e) Streptococcal pneumoniae

238. A 5-year-old boy came for routine check-up. He is up to date in his immunization except varicella vaccine. He was not infected with chicken pox. **The following statement is true:**
a) He does not need vaccination because he has protective antibody from a subclinical infection.
b) The complications of vaccination are fatal.
c) The vaccination is not effective at this age.
d) The vaccination is recommended.
e) Chicken pox is a mild disease, there is no need to give vaccine.

239. The true statement about the patient with a **mild** mental retardation:
a) Common in postmature babies
b) CNS abnormality is commonly found.
c) Aggressive behavior is common.
d) Do not have any friends.
e) Usually diagnosed at school entry age.

240. UTI prophylaxis is indicated in all of the following **except:**

a) Vesicoureteral reflux
b) Urinary tract stasis and obstruction
c) Neurogenic bladder
d) Phimosis
e) Calculi

241. Most common organism of acute bronchiolitis:
a) Influenza virus
b) RSV
c) Parainfluenza virus
d) Rhinovirus
e) Coxsackievirus

242. All of the following medications decrease theophylline clearance and increase theophylline toxicity **except:**
a) Phenobarbital
b) Propranolol
c) Oral contraceptives
d) Erythromycin
e) Cimetidine

243. Home water heater temperature should **not** exceed:
a) 100°F
b) 125°F
c) 135°F
d) 145°F
e) 150°F

244. Most characteristic feature of neurofibromatosis (NF – 2):
a) Bilateral acoustic neuromas
b) Multicystic kidney
c) Mental retardation
d) Generalized seizures
e) Polycystic kidney

245. A 4-month-old girl appears in the ER with history fever and respiratory distress for the last 24 hours. Her mother died recently. Physical examination reveals temperature 102°F, respiratory rate 60 – 70 per minute, blood pressure 65/35, equal air entry in both lungs with scattered rales. Chest X-ray reveals bilateral interstitial infiltrates. **Most likely organism:**
a) Group B Streptococcus
b) RSV
c) S. aureus
d) Pneumocystis carinii
e) Streptococcus pneumoniae

246. A child is diagnosed with Wilson disease. He has two siblings. Both siblings are healthy. **The appropriate management for siblings:**
a) Reassurance only
b) Refer to an opthalmologist
c) Refer to a neurologist
d) Penicillamine therapy
e) Refer to a nephrologist

247. A 3-day-old male appears with history of poor feeding and vomiting. Physical examination reveals lethargy, jaundice, a full anterior fontanelle, and hepatomegaly. Sepsis work up was performed. Blood culture and CSF culture reveal Gram-negative rods. Urine is positive for reducing substances. **Most likely diagnosis:**
a) Group B Streptococcus meningitis

b) S. aureus bacteremia
c) G6PD deficiency with meningitis
d) ‘ABO’ hemolytic disease with meningitis
e) Galactosemia

248. A 3-month-old female infant appears in the ER with history of diarrhea for the last 2 to 3 weeks and rashes in the diaper and oral area for the last 10 days. Mother denies any fever and URI symptoms. Past medical history reveals otitis media and pneumonia. Physical examination reveals failure to thrive (FTT), oral and perineal candidal infections. **Most likely diagnosis:**
a) Severe combined immunodeficiency (SCID)
b) Chronic granulomatous disease
c) Milk intolerance causing diarrhea
d) Marasmus
e) Kwashiorkor

249. A 12-year-old boy appears with history of fever (102°F) and pain in lower end of the left thigh for the last 5 days. He had history of trauma 2 weeks ago in the left ankle. Physical examination reveals swelling, tenderness, and redness in the distal thigh, but a full range of motion in the left knee and left hip. CBC reveals WBC count 21,500/Cu mm with polymorphs 85% and lymphocytes 15%. X-ray reveals normal left femur and left knee. **The next step in investigation:**
a) MRI of the left femur
b) CT scan of the left hip
c) Radionuclide bone scan of left femur
d) Ultrasonography of left knee
e) X-ray of the lower back

250. A 3-year-old girl appears with history of severe diarrhea for the last 5 days. She had been drinking home made liquid formula because her parents could not afford Pedialyte liquid. Physical examination reveals tachycardia, absence of fever, and signs of dehydration. The child received 20 mL/kg 0.9% Nacl bolus intravenously before the SMA6 results are available. The child developed convulsion. SMA6 results reveal Na = 165 mq/L, Cl = 140 mEq/L, BUN = 30, glucose = 60 mg/dL. **Most likely cause of convulsion:**
a) Cerebral hemorrhage
b) Cerebral edema
c) Hypoglycemia
d) Hyponatremia
e) Dehydration

251. The caloric requirement recommended for a 3-month-old boy (Kcal/kg/day):
a) 85
b) 90
c) 100
d) 105
e) 110

252. Ratio of **whey to casein** in cow milk:
a) 82 : 18
b) 40 : 60
c) 60 : 40
d) 25 : 75
e) 18 : 82

253. A 14-year-old girl was diagnosed with scoliosis. She refused treatment. All of the following complications may occur if the patient is not treated for scoliosis **except:**
a) Spinal cord compression
b) Impingement on nerves
c) Cor pulmonale

d) Reduced pulmonary function
e) Degenerative arthritis

254. First antibody appears in body:
a) IgG
b) IgM
c) IgA
d) IgD
e) IgE

255. All of the following conditions result in an increased anion gap **except:**
a) Lithium ingestion
b) Methanol ingestion
c) Renal failure
d) Diabetic ketoacidosis
e) Salicylate poisoning

256. A child is diagnosed with HIV. The most common cause of adrenal hypofunction in this patient:
a) Pneumocystis carinii
b) Toxoplasmosis
c) CMV
d) Mycobacterium avium
e) Cryptococcus species

257. A child with history of near-drowning was brought to the ER. The nurse wants to take the temperature. The best way to measure the **core temperature:**
a) Rectal
b) Oral
c) Axillary
d) Skin
e) Tympanic membrane

258. All of the following are the clinical manifestations of hyperparathyroidism **except:**
a) Hypercalcemia
b) Constipation
c) Fever
d) Increased height
e) Polyuria

259. A 3-year-old boy wants to go to school. The most important finding that indicate that the boy is ready to go to school:
a) Very friendly to other children
b) Follow all commands
c) Toilet trained
d) Does not like to watch TV
e) Expressive language development

260. A 14-year-old boy is admitted to the PICU (Pediatric intensive care unit) with DKA (diabetic Ketoacidosis). He takes both regular and NPH insulin twice daily. He was admitted with DKA 3 weeks ago. **The most likely cause for DKA in this patient:**
a) Eats excessive candy
b) Frequently suffers from an infection
c) Drinks less fluid
d) Takes increased dose of insulin
e) Forgets to take insulin

261. A 7-day-old newborn infant appears with history of constipation, poor sucking and swallowing for the last 4 days. Physical examination reveals drooling, hypotonia, and ptosis. Sepsis work up was performed. CSF examination results was normal. The infant was intubated. Repeat physical examination reveals bilateral dilated pupils. **Most likely diagnosis:**
a) Brain tumor
b) Infantile botulism
c) Encephalitis
d) Gram-negative bacteremia
e) Gram-positive bacteremia

262. A full-term female infant at birth appears with bilateral enlargement of breasts. The infant is otherwise healthy. **The next step in the management:**
a) Perform serum estrogen level
b) Sonogram of the ovary
c) Sonogram of the breasts
d) Head CT scan
e) Reassurance only

263. The most important diagnostic evaluation in a severe **asthmatic patient:**
a) Chest X-ray
b) Pulmonary CT scan
c) Arterial blood gas (ABG)
d) Pulmonary function test
e) Radionuclide pulmonary scan

264. A 10-year-old boy was brought to the ER with history of trauma (fell from a bicycle) to the chest. Physical examination reveals swelling, tenderness, and bruises over the left side of the chest. The boy has pain but no respiratory distress. Chest X-ray reveals recent fracture of three ribs. **The next step in management:**
a) Reassurance only
b) Prepare for a surgical repair
c) Give pain medication
d) Intubate the child
e) Call social worker for suspected child abuse

265. All of the following statements are true about Marfan syndrome **except:**
a) Defective gene at chromosome 15
b) Hypotonia
c) Aortic insufficiency is common
d) Mitral valve prolapse is common
e) Anterior dislocation of the lens

266. A 16-year-old boy was brought to the ER with history of vomiting and abdominal pain due to an acute alcohol ingestion. Physical examination reveals diminished respiration, unresponsiveness, and alcoholic breadth. The boy was intubated. All of the following statements are true **except:**
a) Dialysis is indicated if blood alcohol level is more than 400 mg/dL.
b) The death in alcohol overdose syndrome is due to respiratory depression.
c) Less likely to case gastritis
d) Stool may be positive for guiac test.
e) Blood alcohol level above 500 mg/dL has fatal outcome

267. A 3-year-old boy was admitted to pediatric cardiac ICU after surgical repair of a coarctation of aorta. After the surgery, physical examination reveals grade 2/6 systolic ejection murmur in the upper right sternal border. **Most likely cause of this murmur:**
a) Congenital bicuspid aortic valve
b) Persistent coarctation of aorta
c) Functional murmur
d) Anemia causing murmur

e) Atrial septal defect

268. The most common organism responsible for community-acquired bacterial pneumonia:
a) S. aureus
b) S. epidermidis
c) Pseudomonas
d) Listeria
e) Streptococcus pneumoniae

269. The first sign of liver damage:
a) Increased SGOT
b) Increased SGPT
c) Increased alkaline phosphatase
d) Increased PT (prothrombin time)
e) Increased PTT (partial thromboplastin time)

270. A 3-year-old girl was brought to the ER with history of ingestion of a few unknown tablets. The girl vomited once on the way to hospital. Physical examination reveals mild abdominal tenderness but the abdomen is soft. Abdominal X-ray reveals multiple radioopaque tablets. **Most likely ingested material:**
a) Calcium tablets
b) Iron tablets
c) Multivitamins
d) Vitamin C
e) Vitamin B_{12}

271. A full-term newborn was admitted to regular nursery. Physical examination revealed broad thumbs and broad big toes. The rest of the examination was unremarkable. **The most likely diagnosis:**
a) Marfan syndrome
b) Noonan syndrome
c) Rubinstein – Taybi syndrome
d) Turner syndrome
e) Down syndrome

272. The side effects of imipramine include all of the following **except:**
a) Dry mouth
b) Anxiety
c) Insomnia
d) Salivation
e) May alter sleep pattern

273. A group of children who went to park to play came down with influenza-like symptoms like dry cough, fever, chest pain, headache and body ache. Physical examination reveals hepatosplenomegaly, lymphadenopathy, and bilateral rales over the chest. Most patients have normal chest X-ray, few patients have bronchopneumonia, and hilar lymphadenopathy. **Most likely diagnosis:**
a) Influenza
b) Cryptococcosis
c) Histoplasmosis
d) Sarcoidosis
e) Allergic bronchopulmonary aspergillosis

274. A full-term infant is admitted to regular nursery. Physical examination reveals a single blister on the radial aspect of forearm. Infant is feeding well. **The next appropriate step in management:**
a) Acyclovir therapy
b) Reassurance only
c) Isolate the patient
d) Give VZIG
e) Spinal tap

275. A full-term boy with Down syndrome appears with bilious vomiting. Physical examination reveals non-tender, soft abdomen. Abdominal X-ray reveals double-bubble sign.
Most likely diagnosis:
a) Pyloric stenosis
b) Jejunal atresia
c) Hirschsprung disease
d) Duodenal atresia
e) Gastroesophageal reflux

276. All of the following signs are true about Turner syndrome **except:**
a) Short stature
b) Infertility
c) Abnormal ovaries
d) Bicuspid aortic valve
e) Mental retardation

277. The serotypes of group A beta-hemolytic Streptococcus cause acute rheumatic fever include all of the following **M types except:**
a) 1
b) 3
c) 4
d) 5
e) 18

278. A 17-year-old girl appears with repeated episodes of visual disturbances (e.g., bright spots in the visual field) for the last 6 weeks. Each episode is followed by a frontal headache, speech difficulty, and a transient paralysis of left lower extremity. **Most likely diagnosis:**
a) Migraine
b) Glaucoma
c) Brain tumor
d) Cataract
e) Arterio-venous malformation

279. Most common clinical presentation in tuberous sclerosis:
a) Shagreen patch
b) Seizure
c) Rhabdomyoma
d) Ash leaf
e) Mental retardation

280. Most common type of burn:
a) Flame
b) Electrical
c) Scald
d) Chemical
e) Both flame and chemical combined

281. Vitamin K dependent factors are the following **except:**

a) II
b) VII
c) IX
d) X
e) XI

282. A child was exposed to ionizing radiation. Most common thyroid complication:
a) Hypothyroidism
b) Hyperthyroidism
c) Thyroid hypoplasia
d) Thyroid aplasia
e) Solitary thyroid nodule.

283. A mother of a newborn child is tested positive for PPD and has negative chest X-ray. The next step in management of this child:
a) Chest X-ray
b) Don't do anything to child
c) Start INH
d) Isolate the baby
e) PPD test

284. A child appears with seizure and hemiparesis. Physical examination reveals port wine nevus in trigeminal area opposite to the side of hemiparesis, buphthalmos, and glaucoma. **Most likely diagnosis:**
a) Kasabach – Merritt syndrome
b) EEC syndrome
c) Sturge – Weber syndrome
d) Klippel – Trenauany – Weber syndrome
e) LEOPARD syndrome

285. A child was brought to the ER with hypothermia (temperature 95°F) and diminished respiratory effort. Physical examination reveals hypothermia, hypotension, and respiratory depression. The child did **not** respond to naloxone. **Most likely poisoning due to:**
a) Morphine
b) Cocaine
c) Mushroom
d) Alcohol
e) Barbiturate

286. The least likely complication of an undescended testis:
a) Torsion
b) Malignancy
c) Infertility
d) Psychologic trauma
e) Benign tumor

287. A pregnant mother is a carrier of hemophilia. She is expecting a boy. What is the chance of a male fetus having disease?
a) 0%
b) 25%
c) 50%
d) 75%
e) 100%

288. Physical activities should be limited in the following cardiac disease:
a) VSD
b) ASD

c) PDA
d) Aortic valve stenosis
e) Pulmonary artery stenosis

289. A male child is diagnosed with ADHD (attention deficit hyperactivity syndrome). His father has tics. The physician should try to **avoid** the following medication:
a) Clonidine
b) Imipramine
c) Methylphenidate
d) Guanfacine hydrochloride
e) Desipramine

290. A 20-week-old female fetus was aborted. Physical examination reveals cystic hygroma. **Most likely diagnosis:**
a) Turner syndrome
b) Down syndrome
c) Noonan syndrome
d) Trisomy 18
e) Trisomy 16

291. The time of eruption of the first teeth in an infant (month):
a) 3 – 4
b) 4 – 5
c) 5 – 7
d) 7 – 8
e) 8 – 9

292. A 8-day-old female newborn appears with discharges from both eyes. Physical examination reveals bilateral swelling of the eyelids. The definitive diagnostic test:
a) Gram stain
b) Blood culture
c) Bacterial culture
d) Viral culture
e) PCR study or culture of the conjunctival specimen

293. A total of 100 newborns were exposed to maternal smoking; 60 newborns (A) were born SGA (small for gestational age) and 40 newborns (B) were born normal. A separate group of 100 newborns were **not** exposed to maternal smoking; 20 newborns (C) were born SGA and 80 newborns (D) were born normal. Incidence rate of SGA in maternal smoking group:
a) 20%
b) 40%
c) 60%
d) 80%
e) 100%

294. A child was extubated and developed postextubation subglottic edema. **The next step in management:**
a) Furosemide
b) Reintubate immediately
c) Spironolactone
d) Nasal CPAP (continuous positive airway pressure)
e) Inhalation of aerosolized racemic epinephrine

295. An infant's physical examination reveals bilateral retinal hemorrhages. **Most likely diagnosis:**
a) Retinoblastoma
b) Hemophilia
c) von-Willebrand disease
d) Shaken baby syndrome

e) Head injury

296. All of the following is recommended in an infant who is a high-risk for developing food allergy and atopic dermatitis **except:**
a) Discontinue breast feeding if mother has eczema.
b) Only breast feeding for first 4 to 6 months of life
c) Use hypoallergenic milk
d) Delay introduction of solid foods until 4 to 6 months of age.
e) Delay introduction of cow's milk until 1 year of age.

297. Influenza vaccine is indicated in all of the following conditions **except:**
a) Cystic fibrosis
b) Recurrent otitis media
c) Sickle cell anemia
d) Congenital heart disease
e) Asthma

298. A physical examination of a child reveals erythema chronicum migrans. **Most likely diagnosis:**
a) Rheumatic fever
b) Kawasaki disease
c) Lyme disease
d) Sarcoidosis
e) Steven-Johnson syndrome

299. A full-term SGA (small for gestational age) newborn appears with hepatosplenomegaly and rubelliform rash. **Most likely diagnosis:**
a) Rubella
b) Herpes
c) Toxoplasmosis
d) Syphilis
e) CMV

300. A 16-year-old girl has severe acne. She is going to use isotretinoin (13-cis-retinoid acid) for acne. The following investigation is indicated before the use of this medication:
a) EKG
b) Echocardiogram
c) Renal function test
d) Liver function test
e) Lung function test

301. The following deficiency can occur in puberty:
a) Protein
b) Fat
c) Carbohydrate
d) Sodium
e) Calcium

302. A total of 200 newborns were exposed to maternal smoking; 120 newborns (A) were born SGA and 80 newborns (B) were born normal. A separate group of 200 newborns were not exposed to maternal smoking; 40 newborns (C) were born SGA and 160 newborns (D) were born normal. **The relative risk:**
a) 3%
b) 20%
c) 40%
d) 60%
e) 80%

303. A 3-year-old boy was brought to the ER with history of pain and swelling of the right leg for the last 12 hours. His mother stated that the incident happened while the child was playing at home. She denies any child abuse. Physical examination reveals tenderness, mild redness, and swelling of the right leg. The boy is unable to walk. **Most likely X-ray finding:**
a) Normal
b) Osteomyelitis
c) Spiral fracture
d) Tendinitis
e) Septic arthritis

304. A newborn male appears with jaundice due to Rh-hemolytic disease. The most common antigen responsible for Rh-hemolytic disease:
a) A
b) B
c) C
d) D
e) E

305. A 36-year-old mother is pregnant. She is worried about Down syndrome. All of the following findings suggest Down syndrome **except:**
a) Increased HCG
b) Nuchal fat
c) Decreased alpha feto protein
d) Decreased unconjugated estriol
e) VSD

306. A male athlete is diagnosed to have visible herpetic lesions. He is **not** allowed to participate:
a) Golf
b) Tennis
c) Cycling
d) Wrestling
e) Running

307. Most common cause of homicide in adolescents:
a) Knife
b) Stick
c) Firearm
d) Baseball bat
e) Chain

308. A 2-year-old girl was brought to the ER with history of vomiting and diarrhea for the last 24 hours. The mother denies any history of fever. The girl was admitted 4 times in the last 6 months for gastroenteritis. The girl is admitted to the pediatric floor. She vomited once after admission. Mother notified the nurse. She stayed with her the whole night. She vomited again after several hours. She had no more episodes of diarrhea. The next day, mother went home. The girl had no more vomiting and diarrhea. Mother returned in the evening. A few hours later, the girl started to vomit again. **Most likely diagnosis:**
a) Child abuse
b) Viral gastroenteritis
c) Munchausen by proxy syndrome
d) Gastroesophageal reflux
e) Intestinal obstruction

309. The most commonly affected cranial nerve in Lyme disease:
a) 3rd
b) 5th
c) 7th

d) 9th
e) 12th

310. A total of 50 newborns were exposed to maternal smoking; 30 newborns (A) were born SGA and 20 newborns (B) were born normal. A separate group of 50 newborns were not exposed to maternal smoking; 10 newborns (C) were born SGA and 40 newborns (D) were born normal. **The odds ratio:**
a) 2
b) 3
c) 4
d) 5
e) 6

311. A full-term male newborn was admitted to NICU with the history of mild respiratory distress. Maternal history was unremarkable. Sepsis work up was performed. The preferred treatment:
a) Only ampicillin
b) Only gentamicin
c) Ampicillin and gentamicin
d) Vancomycin and cefotaxime
e) Ampicillin and cefotaxime

312. A 3-year-old boy was brought to the ER with history of first episode of generalized tonic-clonic convulsion associated with fever. The boy had fever (103.3°F or 39°C) for the last 48 hours. The seizure lasted for 9 minutes. The boy had history of URI symptoms for the last 2 days. Physical examination reveals postictal state, absence of otitis media, and mildly injected throat. **Most likely diagnosis:**
a) Febrile seizure
b) Seizure disorder
c) Meningitis
d) Pharyngitis
e) URI

313. A 7-day-old newborn female is diagnosed with hypothyroidism. The most sensitive laboratory indicator for primary hypothyroidism:
a) T3
b) T4
c) Free – T4
d) TRH
e) TSH

314. A boy developed anaphylactic reaction after a food intake. **This reaction is due to:**
a) IgA
b) IgG
c) IgM
d) IgD
e) IgE

315. Least likely postoperative complication of Hirschsprung disease:
a) Recurrent enterocolitis
b) Stricture
c) Fecal incontinence
d) Prolapse
e) Perianal abscess

316. A pregnant mother is diagnosed with active tuberculosis. She should be treated with anti-tuberculous drugs. **The drug most likely causes fetal toxicity:**
a) INH
b) Streptomycin

c) Rifampin
d) Ethambutol
e) Pyrazinamide

317. All of the following statements are true about iron poisoning **except:**
a) Oral deferoxamine is useful
b) Intravenous deferoxamine is useful
c) Activated charcoal is not useful
d) Gastric lavage is not useful
e) Aggressive whole bowel irrigation has questionable success.

318. A child appears with left periorbital ecchymosis. Physical examination reveals left eye ptosis, miosis, and opsoclonus with ataxia. **Most likely diagnosis:**
a) Retinoblastoma
b) Hyperthyroidism
c) Pheochromocytoma
d) Neuroblastoma
e) Rhabdomyosarcoma

319. A 6-year-old boy is diagnosed to have a coagulation abnormality. He was bleeding heavily after the tonsillectomy. Laboratory results reveal decreased factor VIII C, increased bleeding time, normal PT, and increased PTT. **Most likely diagnosis:**
a) Hemophilia A
b) Hemophilia B
c) Hemophilia C
d) Carrier hemophilia
e) von-Willebrand disease

320. A well-developed, well-nourished infant appears with systolic ejection murmur in the right upper sternal border. The murmur heard best during expiration. The 2nd heart sound was split. **Most likely diagnosis:**
a) Pulmonic stenosis
b) ASD
c) VSD
d) Aortic stenosis
e) Mitral regurgitation

321. Step-by-step development of normal puberty in male:
a) Testes, thining of scrotum, growth of penis, pigmentation of scrotum, pubic hair, deepening of voice, erection, and ejaculation.
b) Testes, growth of penis, thining of scrotum, pigmentation of scrotum, pubic hair, deepening of voice, erection, and ejaculation.
c) Testes, pubic hair, growth of penis, thining of scrotum, pigmentation of scrotum, deepening of voice, erection, and ejaculation.
d) Pubic hair, testes, growth of penis, thining of scrotum, deepening of voice, pigmentation of scrotum, erection, and ejaculation.
e) Testes, thining of scrotum, pigmentation of scrotum, growth of penis, pubic hair, deepening of voice, erection and ejaculation.

322. Step-by-step development of normal puberty in female:
a) Breasts, pubic hair, axillary hair, maturation of external genitalia, and menstruation.
b) Breasts, axillary hair, pubic hair, maturation of external genitalia, and menstruation.
c) Pubic hair, breasts, axillary hair, menstruation, and maturation of external genitalia.
d) Breasts, pubic hair, maturation of external genitalia, axillary hair, and menstruation.
e) Breasts, maturation of external genitalia, pubic hair, axillary hair, and menstruation.

323. A 14-month-old girl appears in a clinic for routine check-up. Physical examination reveals enamel erosion in the upper teeth. Mother stated that the girl usually prefers to sleep with nursing bottle containing milk. **Most likely diagnosis:**
a) Fluoride deficiency
b) Fluoride toxicity
c) Baby bottle tooth decay (BBTD)
d) Calcium deficiency
e) Calcium excess

324. A full-term male newborn was admitted to regular nursery. The baby was doing well. His mother developed chicken pox 24 hours after the baby was delivered. **The next step in management:**
a) Reassurance only
b) VZIG to the baby
c) Acyclovir therapy to the baby
d) VZIG to the mother
e) Acyclovir therapy to the mother

325. A 16-year-old girl appears in a clinic with the genital lesion. Physical examination reveals genital warts. She is sexually active. Most likely due to human papilloma virus type:
a) 2
b) 3
c) 4
d) 6
e) 10

326. All of the following statements are true about mammalian bites **except:**
a) All puncture wounds should be thoroughly cleaned.
b) All wounds should be irrigated with large amount of normal saline.
c) Irrigation with antibiotic-containing solution is preferred.
d) Infected wounds or wounds beyond 24 hours duration should not be sutured.
e) Amoxicillin-clavulanate is used for both prophylaxis and treatment.

327. A 7-year-old healthy boy with Down syndrome appears in a clinic for a routine check-up. The investigation may be appropriate:
a) Upper GI series
b) Opthalmologic examination
c) Echocardiogram
d) Hematologic evaluation
e) Cervical X-ray

328. Mode of inheritance in ataxia telangiectasia:
a) Autosomal recessive
b) Autosomal dominant
c) X-linked recessive
d) X-linked dominant
e) Multifactorial

329. A female child walks well and runs stiffly. She kisses her parents and helps with housework. She says 10 words but cannot put
3 words together. She uses words for her needs. She feeds herself with a spoon. She can build a tower with 4 cubes.
Most likely age in months:
a) 12
b) 15
c) 18
d) 24

e) 30

330. A 36-hour-old male newborn appears with jaundice. He is receiving breast milk every 3 – 4 hours. Mother stated that the baby cries between feeding. Mother’s blood type is A-positive and the baby’s blood type is O-negative, Coombs negative. The serum bilirubin level is 16 mg/dL at 36 hours of life. The baby’s birth weight was 3.4 kg. The baby’s weight after 24 hours is 3.2 kg. **Most likely diagnosis:**
a) Rh-hemolytic disease
b) ABO hemolytic disease
c) Physiologic jaundice
d) Breast-milk jaundice
e) Breast-feeding jaundice

331. Breast-feeding is not allowed when a mother is taking following medication:
a) Amoxicillin
b) Rifampin
c) Acyclovir
d) Cyclosporine
e) Aztreonam

332. A female child is diagnosed with hyperkalemia. Physical examination reveals irregular and rapid heart rates. The serum K level is 7.5 mEq/L. The rest of the SMA 6 results are normal. **The first drug of choice in this patient:**
a) Intravenous glucose and insulin
b) Oral kayexalate
c) Slow intravenous calcium gluconate with ECG monitoring
d) Intravenous sodium bicarbonate
e) Intravenous salbutamol

333. The complications of inhaled steroids includes all of the following **except:**
a) Dysphonia
b) Growth impairment
c) Oropharyngeal candidiasis
d) Disseminated varicella infection
e) Dysarthria

334. A male child was admitted to PICU for a bacterial pneumonia. He was admitted 3 times previously for recurrent infections and diarrhea. Physical examination revealed lymphadenopathy, bilateral rales, and a skin abscess. His parents are healthy. **Most likely diagnosis:**
a) HIV infection
b) Leukocyte adhesion deficiency
c) Chediak-Higashi syndrome
d) Myeloperoxidase deficiency
e) Chronic granulomatous disease

335. A female child was admitted in the pediatric ward for anemia. Her hemoglobin was 6 mg/dL and hematocrit was 18. During the packed-RBCs transfusion, she developed severe anaphylactic reactions. The blood was returned to the blood bank for further checking. Blood transfusion was stopped immediately. The test results revealed that the girl received properly matched blood. **Most likely diagnosis:**
a) Selective IgA deficiency
b) Minor group incompatibility
c) ABO incompatibility
d) Rh-hemolytic disease
e) Selective IgM deficiency

336. A total of 500 newborns were exposed to maternal alcohol; 300 newborns (A) were born SGA and 200 newborns (B) were born normal. A separate group of 500 newborns were not exposed to maternal alcohol; 100 newborns (C) were born SGA and 400 newborns (D) were born normal. **The attributal risk:**
a) 20%
b) 40%
c) 60%
d) 80%
e) 90%

337. A 7-day-old female child is diagnosed with MSUD (maple syrup urine disease). All of the following are elevated **except:**
a) Leucine
b) Valine
c) Alanine
d) Isoleucine
e) Alloisoleucine

338. A 10-year-old boy was admitted to PICU after a head injury. He was intubated and was placed on a mechanical ventilator. After 24 hours of admission, physical examination reveals flexion of both upper extremities and extension of both lower extremities. Both pupils are constricted. **Most likely complication:**
a) Meningitis
b) Encephalitis
c) Uncal herniation
d) Decorticate posture
e) Decerebrate posture

339. A boy can stand momentarily in one foot. He feeds himself and knows his gender. He dresses with supervision. He copies circle but cannot draw a person or square. He cannot hop. He cannot use toilet without help. He can build a tower of 10 cubes. **Most likely age in years:**
a) 2
b) 3
c) 4
d) 5
e) 6

340. A full-term newborn boy is admitted to a regular nursery. Physical examination reveals white reflex in pupil of the left eye. The rest of the physical examination is normal. **Most likely diagnosis:**
a) Cataract
b) Retinoblastoma
c) Neuroblastoma
d) Galactosemia
e) Lens dislocation

341. A full-term newborn is admitted to NICU with the right forearm deformity. Physical examination reveals short and deformed right forearm. X-ray reveals absence of radius in the right arm. **Most likely associated cutaneous manifestation:**
a) Jaundice
b) Hemangioma
c) Urticaria
d) Eczema
e) Thrombocytopenia / petechiae

342. A preterm 26 weeks gestational age newborn required surgical ligation for PDA (patent ductus arteriosus). All of the following are expected after surgical ligation of PDA **except:**
a) Child gains weight
b) Cardiac failure disappears

- c) Less respiratory infections
- d) EKG becomes normal
- e) Absence of a functional systolic murmur over pulmonary area.

343. A 3-year-old girl was treated for right otitis media. A routine follow-up examination was performed 6 weeks after the therapy was completed. The examination revealed middle-air fluid in the right ear. **The next step in management:**
- a) Repeat the same antibiotic therapy
- b) Use another antibiotic
- c) Tympanostomy tube
- d) Myringotomy
- e) Re-examination after 2 weeks

344. A 7-year-old boy is diagnosed with primary hyperthyroidism. **Thyroid function test (TFT) should reveal:**
- a) Elevated T4, normal T3, elevated TSH
- b) Normal T4, elevated T3, elevated TSH
- c) Decreased T4, decreased T3, elevated TSH
- d) Elevated T4, elevated T3, decreased TSH
- e) Elevated T4, elevated T3, elevated TSH

345. A 5-year-old girl appeared in the ER with history of burn. The criteria for hospital admission in a burn patient includes all of the following **except:**
- a) Smoke inhalation
- b) Suspected child abuse
- c) Burn in the face
- d) Electrical burns
- e) Burn less than 10% of body surface

346. A 14-year-old boy is diagnosed with asthma. He is receiving theophylline. His doctor wants to add zileuton. **The next step in management:**
- a) Increase theophylline
- b) Decrease theophylline by 20%
- c) Decrease theophylline by 30%
- d) Decrease theophylline by 40%
- e) Decrease theophylline by 50%

347. The true statement about breast milk:
- a) High iron
- b) High calcium
- c) Low phosphorus
- d) High vitamin K
- e) Low cholesterol

348. All of the following statements are true about rabies vaccination **except:**
- a) Vaccine is given in deltoid muscle
- b) Vaccine is given in anterolateral thigh in infants and young children.
- c) Vaccine is very effective in gluteus muscle.
- d) Five doses are recommended for postexposure prophylaxis.
- e) Three doses are recommended for pre-exposure prophylaxis

349. Time to perform orchiopexy for undescended testes:
- a) 3 – 6 month
- b) 6 – 9 month
- c) 9 – 15 month
- d) 15 – 20 month
- e) 20 – 24 month

350. A 16-year-old boy developed left homonymous hemianopsia. **Most likely site of lesion**:
a) Left optic tract
b) Left optic nerve
c) Right optic nerve
d) Left retina
e) Right optic tract

351. A female child was diagnosed with HIV infection. She was receiving multi-drug therapy. Her condition was deteriorating despite therapy. Laboratory test results revealed a decreasing $CD4^+$ count. **The next practical approach in management:**
a) Increase the doses
b) Increase the frequencies
c) Change one drug
d) Discontinue at least one drug
e) Change at least two drugs

352. A 7-day-old boy appears in a clinic for routine check-up. Her mother noticed at home that the boy stops breathing for about 2-5 seconds which is followed by a rapid breathing. She denies any cyanotic episode. **The next step in management:**
a) Reassurance only
b) Pneumogram
c) Chest X-ray
d) EKG
e) Admit for sepsis work up

353. A preterm female infant was delivered by NSVD. The girl required positive pressure ventilation, a few chest compression, and finally intubation. The girl was admitted to NICU in a stable condition. She was placed on a mechanical ventilator. **The next step in management:**
a) Head sonogram
b) Chest X-ray STAT
c) Give sodium bicarbonate
d) SMA 6
e) Serum glucose concentration

354. A 12-month-old boy appears in a clinic for a routine check-up. The boy is doing well. He sleeps well and feeds well. Physical examination reveals weight and height are above 95 th percentile. His head circumference is just below the 90 th percentile. He has an excessive subcutaneous fat. The rest of the physical examination is normal. **Most likely cause his obesity:**
a) Fruit juice
b) Milk
c) Genetic
d) Constitutional
e) Solid food

355. A full-term LGA (large for gestational age) male was born by NSVD and was diagnosed to have right fracture clavicle. **Most appropriate management:**
a) Orthopedic consult STAT
b) Shoulder cast
c) Morphine for pain
d) Chest X-ray
e) Secure the right hand in front of the chest with the shirt.

356. A 3-year-old boy appears in the ER with history of respiratory distress, barking cough, and stridor for the last 2 hours. The boy has no fever. Physical examination reveals temperature 98.6°F (37°C), respiratory rate 30 per minute, and blood pressure 85/50. **Most likely diagnosis:**
a) Croup

b) Foreign body inside trachea
c) Asthma
d) Epiglottitis
e) Foreign body inside bronchus

357. The true statement about pyloric stenosis:
a) More common in first-born female child.
b) Incidence of pyloric stenosis is 20% if father has pyloric stenosis.
c) Usually presents with bilious vomiting.
d) Hypochloremic metabolic alkalosis is present.
e) Ultrasonographic finding is not conclusive.

358. Sensorineural hearing loss is common:
a) Otitis media
b) Cerumen
c) CMV
d) Perforated ear drug
e) Middle ear fluid

359. The true statement about motor vehicle accident (MVA):
a) Drivers educational classes bring more young drivers on street, and this increases likelihood of more MVA.
b) Most common cause of MVA in adolescents is the use of marijuana (50% of cases)
c) Most accidents happen between 8 A.M. to 4 P.M.
d) The second most common cause of MVA is the use of alcohol (15% of cases).
e) Police should give anticipatory guidance to adolescents.

360. A rapid correction of fluid in a child with hypernatremic dehydration results in:
a) IVH
b) Subdural hemorrhage
c) Cerebral cells atrophy
d) Cerebral cells swelling
e) PVL (periventricular leukomalacia)

361. A 3-year-old boy appeared in the ER with history of diarrhea for the last 3 to 4 days. Physical examination reveals dry mucous membrane, sunken eyes, no tears, and mild tachycardia. **The best therapeutic approach:**
a) Oral rehydration therapy
b) Intravenous D_{10} water
c) NPO plus IV hydration
d) Intravenous D_5 water
e) Intravenous 3% sodium chloride

362. An average 4-year-old child usually watches TV (television) in hours per week:
a) 10 to 20
b) 20 to 30
c) 30 to 40
d) 40 to 45
e) 45 to 50

363. All of the following statements are true about inhaled nitric oxide therapy **except:**
a) Pulmonary vasodilator
b) Systemic hypotension
c) Methhemoglobin formation
d) Nitrogen dioxime formation
e) Decreases pulmonary vascular resistance

364. A child is diagnosed with a neuromuscular disorder. The definitive diagnostic study:
a) CPK
b) EMG (electromyography)
c) Nerve conduction study
d) MRI
e) Muscle biopsy

365. A child is going to visit to a developing country with his parents. All of the following recommendations are true for diarrhea prophylaxis **except:**
a) Use antibiotic
b) Use bottled water
c) Eat hot food
d) Maintain personal hygiene
e) Eat bread

366. A child is diagnosed with neurofibromatosis (NF 1). The clinical presentation which is diagnostic for this condition:
a) Five café-au-lait spots over 5 mm in diameter.
b) Four café-au-lait spots over 4 mm in diameter.
c) Eye examination reveals hamartoma in the iris and absence of café-au-lait spots.
d) Kyphoscoliosis without café-au-lait spots.
e) Six café-au-lait spots 6 mm in diameter plus father has neurofibromatosis (NF 1).

367. A fetus is diagnosed with hydrops. **Most likely cause:**
a) CMV
b) Rubella
c) Parvovirus B 19
d) Herpes
e) Toxoplasmosis

368. A 14-year-old boy is diagnosed with mumps orchitis. **Most likely complication:**
a) Testicular cancer
b) Testicular hypertropy
c) Encephalitis
d) Meningitis
e) Testicular atrophy

369. All of the following statements are true about prevention of CMV infection **except:**
a) Use CMV-free blood products
b) Use CMV-free donors for transplantation
c) CMV seropositive pregnant mothers have a high risk of delivering a child with CMV
d) For renal transplant recipients, live attenuated vaccine (active immunization) does not protect from CMV infection but reduces the severity of infection.
e) Vaccine is not useful against naturally acquired infection.

370. A full-term black female is admitted to a regular nursery. Physical examination reveals gray color and slightly pigmented fundus during opthalmologic examination. **Most likely diagnosis:**
a) Retinitis pigmentosa
b) Chorioretinitis
c) Optic nerve atrophy
d) Papilledema
e) Normal retina

371. All of the following are indications for tonsillectomy **except:**
a) Obstruction due to tonsils
b) Tumor of tonsills

c) Middle-ear deafness
d) Peritonsillar abscess with prior history of tonsillitis
e) Recurrent peritonsillar abscess

372. A male child was brought to the ER with history of fever (103°F) and respiratory distress. He had fever for the last 3 days. He developed respiratory distress for the last 8 hours. Physical examination reveals rales over the right upper chest wall and tachypnea. Chest X-ray reveals right upper lobe pneumonia with a bulging fissure. **Most likely organism:**
a) S. aureus
b) Streptococcus pneumoniae
c) Klebsiella
d) Mycoplasma pneumonia
e) Streptococcus pyogenes

373. The most common cause of fatal car accidents in adolescents:
a) Marijuana use
b) Methanol consumption
c) Cocaine use
d) Ethanol consumption
e) Suicidal attempt

374. A 5-year-old black male boy appears with mild jaundice. He looks pale. He was taking sulfur drugs for the last 24 hours. CBC reveals hemoglobin 6 g/dL, hematocrit 18, reticulocyte count 14%, and presence of Heinz bodies in a peripheral smear. Serum bilirubin level is 6 mg/dL. **Most likely diagnosis:**
a) G6PD deficiency
b) Sickle cell disease
c) Malaria
d) Thalassemia major
e) Gallbladder stone

375. A female athlete wants to prevent heat related illness during practice in the afternoon. **The best recommendation:**
a) Wear loose fitting clothes
b) Take unrestricted fluids
c) Take salt tablets
d) Do practice at night
e) Practice in a place with an air condition facility

376. A newborn male child weighs 8 lb at birth. He will become 16 lb:
a) 3 months
b) 5 months
c) 7 months
d) 9 months
e) 12 months

377. A 4-year-old girl's measured length is 44 inches. What was her approximate length at birth?
a) 20 inches
b) 21 inches
c) 22 inches
d) 23 inches
e) 24 inches

378. A 2-month-old boy was brought to a clinic by his mother for a routine check up. The boy has been 'spitting up' a small amount of milk after each feeding. He drinks 4 to 5 oz of Enfamil with iron every 4 hours. He has gained adequate weight. Physical examination is unremarkable. **The next step in management:**
a) Esophageal pH monitoring

b) Switch to a soy formula
c) Upper GI series
d) Reassurance only
e) Use high caloric formula with a solid food

379. A female child appears in the ER with a severe asthma attack. She has been using albuterol inhalation pump. Physical examination reveals tachypnea, intercostal and subcostal retractions, and expiratory wheezes. She is in a respiratory failure. The most important finding suggests impending respiratory failure:
a) Hypoxia
b) Hypercarbia
c) Fatigue
d) Lethargy
e) Hypocarbia

380. A male football player appears in a clinic with history of trauma in the left thigh. He has been limping since the trauma. Physical examination reveals left thigh swelling but full range of knee and hip joints movement. CBC reveals a drop of hemoglobin from 16 to 12. **Most likely diagnosis:**
a) Hematoma in the left thigh
b) Osteomyelitis
c) Ewing sarcoma
d) Osteoblastoma
e) Osteosarcoma

381. The best diagnostic procedure for a posterior fossa brain tumor:
a) CT-scan
b) Brain scan
c) Skull X-ray
d) Ultrasonography
e) MRI

382. A pregnant mother had left cleft lip and palate at birth. She is worried about her unborn child. The risk that the child will have unilateral cleft lip and palate:
a) 2%
b) 4%
c) 10%
d) 25%
e) 50%

383. A full-term 12-hour-old newborn did not pass meconium. Mother is worried. Most of the full-term newborns pass meconium within:
a) 12 hours
b) 24 hours
c) 48 hours
d) 60 hours
e) 72 hours

384. The deficiency of a trace element causes cardiomyopathy:
a) Zinc
b) Copper
c) Cobalt
d) Selenium
e) Manganese

385. A male obese child's total cholesterol level is 169 mg/dL. His mother is worried. The next step in management:
a) Repeat another cholesterol level.
b) Fasting lipid profile should be performed.

c) Fat intake should not exceed 30% of total calories
d) Start cholestyramine
e) No intervention is needed and should be re-checked in 5 years.

386. A 9-month-old girl appears with out-toeing and lateral hip rotation. Mother is worried. **The next step in management:**
a) Orthopedic consult STAT
b) X-ray both hip joints
c) Ultrasonography of the knee joints
d) X-ray of both legs
e) Reassurance only

387. All of the following can cause Bell's palsy (unilateral facial palsy) **except:**
a) Lyme disease
b) Epstein-Barr virus
c) Herpes virus
d) Mumps virus
e) Rubella virus

388. A 5-day-old boy is receiving phenobarbital for seizure. The half-life of phenobarbital is 96 hours. **The steady state of phenobarbital is achieved:**
a) 192 hours
b) 288 hours
c) 384 hours
d) 480 hours
e) 576 hours

389. The side effect of furosemide therapy:
a) Calcuria
b) Elevated serum calcium level
c) Decreases BUN
d) Decreases creatinine
e) Elevated serum K level

390. A 2-day-old male infant is diagnosed with malrotation with obstruction. The best diagnostic procedure:
a) Abdominal ultrasonography
b) X-ray of the abdomen
c) Barium enema
d) Guiac positive stool
e) Upper GI series

391. A 15-year-old boy developed swelling and discomfort in the left breast for the last 3 days. Physical examination reveals swelling and tenderness in the left breast. His growth and development are normal. **The next step in management:**
a) Head CT scan
b) Abdominal CT scan
c) Ultrasonography of the abdomen
d) MRI of the pituitary
e) Reassurance only

392. Most common karyotype in true hermaphroditism:
a) 46, XY
b) 46, XX
c) 45, X/46, XY
d) 45, X
e) 45, X/46, X, dic Y

393. A 13-year-old boy appeared in a clinic for a routine check up. His blood pressure was between 90 th and 95 th percentile. Blood pressure was recorded three times. He was mildly obese. The next step in management:
   a) Check his parents blood pressure
   b) Perform serum SMA 6
   c) Start antihypertensive drug
   d) Counsel to reduce body weight
   e) Perform serum cholesterol level

394. Most common cause of thromboembolic stroke in children:
   a) Coagulation disorder
   b) Polycythemia
   c) CNS trauma
   d) Aortic injury
   e) Cardiac abnormalities

395. The true statement about null hypothesis:
   a) Type I error means null hypothesis is false and rejected
   b) Type I error means null hypothesis is true, but rejected
   c) Type II error means null hypothesis is true and accepted
   d) Type II error means null hypothesis is true, but rejected
   e) Observed differences are not due to random variation in data.

396. The true statement about milk:
   a) Cow’s milk contains less vitamin K than breast milk
   b) Cow’s milk has low vitamin D.
   c) Cow’s milk has high vitamin C.
   d) Breast milk has low vitamin C.
   e) Breast milk has low vitamin B-complex.

397. All of the following are contraindications to a participation in sports **except:**
   a) Heat illness
   b) Fever
   c) Carditis
   d) Acutely enlarged liver
   e) Acutely enlarged spleen

398. An infant appears in the ER with an abdominal mass and hematuria. Ultrasonography reveals a renal mass. Intravenous pyelography reveals splaying of calices. **Most likely diagnosis:**
   a) Neuroblastoma
   b) Pheochromocytoma
   c) Wilms tumor
   d) Polycystic kidney
   e) Multicystic kidney

399. A 15-year-old girl appears in the clinic with history of a dry cough with harsh, ‘barking’ quality for the last 2 weeks. She has no fever. She had history of mild whitish vaginal discharge for the last 3 weeks. She had no problems in sleeping at night. Her mother said that she did not cough at night while sleeping. Physical examination reveals mildly injected throat. **Most likely diagnosis:**
   a) Pharyngitis
   b) Chlamydia
   c) Croup
   d) Laryngeal papilloma
   e) Habit cough

400. A 6-year-old boy was admitted to PICU with diabetic ketoacidosis (DKA). **The immediately goal of therapy:**
   a) Start regular insulin

b) Start sodium bicarbonate
c) Start NPH insulin
d) Expansion of intravascular volume
e) Catheterize the urinary bladder to measure urinary input and output

401. Most common organism responsible for an infection in a burn patient:
a) Pseudomonas aeruginosa
b) S. aureus
c) S. epidermidis
d) E. coli
e) Streptococcus pneumoniae

402. A toddler male child is diagnosed with hemophilia. Most important site of hemarthroses in a toddler:
a) Knee
b) Hip
c) Ankle
d) Shoulder
e) Elbow

403. A child was brought to the ER. He was resuscitated but expired. Mother told that the boy was scheduled to have a cardiac surgery
6 weeks from now. Autopsy was performed. **Most likely diagnosis:**
a) Mitral stenosis
b) Mitral valve prolapse
c) Pulmonic stenosis
d) Aortic coarctation
e) Congenital aortic stenosis

404. A child is diagnosed to have a blistering distal dactylitis. **Most common organism:**
a) Herpes
b) S. aureus
c) Pseudomonas aeruginosa
d) S. epidermidis
e) Beta-hemolytic Streptococci

405. All of the following drugs causing hypoadrenalism **except:**
a) Ketoconazole
b) Phenytoin
c) Phenobarbital
d) Rifampin
e) INH

406. A female child appears in a clinic for a routine check up. She developed a transient urticarial rash after the previous vaccination. She is due for the same vaccination. **The next step in management:**
a) Don’t give vaccination
b) Give half of the vaccine
c) Vaccine should be given
d) Give three-fourth of the vaccine
e) Give antihistamine 30 minutes before vaccination.

407. A full-term male newborn is delivered by NSVD. His mother has history of lupus. **The most common complication:**
a) Mitral stenosis
b) Aortic stenosis
c) Cardiac tumor
d) Congenital heart block

e) VSD

408. A 14-year-old girl appears with sudden onset of left chest pain for the last 2 hours. She has no fever. She denies history of trauma. Her menstrual period is regular, usually lasts for 5 days, and presently, she is on day 3 of her period. **Most likely diagnosis:**
a) Pneumomediastinum
b) Pneumothorax
c) Pulmonary embolism
d) Asthma
e) Angina

409. A 2-year-old boy received an evaporated milk and appeared with progressive cyanosis that was not improved with oxygen administration. **Most likely diagnosis:**
a) Cyanotic heart disease
b) Critical aortic stenosis
c) CNS hemorrhage
d) Methemoglobinemia
e) Aortic coarctation

410. A 10-year-old girl appears with dysuria, suprapubic pain, urgency, frequency, and incontinence. Physical examination reveals temperature 98.6°F, presence of suprapubic tenderness. **Most likely diagnosis:**
a) UTI
b) Perinephric abscess
c) Renal stone
d) Pyelonephritis
e) Cystitis

411. The true statement about the management of recurrent acute otitis media **except:**
a) Adenoidectomy is indicated
b) Xylitol may be useful
c) Gastroesophageal reflux should be treated.
d) Cigarette smoking at home should be stopped.
e) Evaluation for allergy may be useful in some children.

412. A 16-year-old girl is diagnosed with PID (pelvic inflammatory disease). The girl is symptomatic and is admitted to a hospital. The next step in management:
a) Intravenous doxycycline
b) IM gentamicin
c) Intramuscular clindamycin
d) PO doxycycline
e) Intravenous cefoxitin plus doxycycline

413. A 4-year-old girl was brought to the ER with history of vomiting and pain in the upper abdomen for the last 5 hours. She is developmentally delayed. She swallowed unusual materials. Physical examination reveals palpable abdominal mass. Most likely diagnosis:
a) Duodenal stenosis
b) Malrotation
c) Pyloric stenosis
d) Bezoar
e) Jejunal atresia

414. Most common indication for liver transplantation:
a) Fatty liver
b) Alpha-1-antitrypsin deficiency
c) Hepatorenal syndrome
d) Acute hepatic necrosis
e) Extrahepatic biliary atresia

415. Most common cause of anosmia:
a) URI
b) Frontal lobe tumor
c) Fracture of cribiform plate
d) Refsum disease
e) Kallmann syndrome

416. Most common organism causing peritonitis in CAPD (continuous ambulatory peritoneal dialysis):
a) S. aureus
b) Pseudomonas
c) S. epidermidis
d) Listeria
e) Streptococcus pneumoniae

417. A male child developed severe anaphylactic reaction after IGIV (immune globulin intravenous). Most likely diagnosis:
a) HIV
b) IgM deficiency
c) IgG deficiency
d) Selective IgA deficiency
e) IgE deficiency

418. Maximal growth of the brain or head occurs:
a) 0 – 1 year
b) 1 – 2 year
c) 3 – 4 year
d) 4 – 5 year
e) 5 – 6 year

419. A child is diagnosed with cystic fibrosis. The nutritional therapy includes all of the following **except:**
a) High protein
b) High calorie
c) High fat
d) Low roughage
e) All fat soluble vitamins

420. A 3-day-old female newborn developed bilateral purulent conjunctivitis. Most likely cause:
a) Chemical
b) Chlamydia
c) Pseudomonas
d) S. aureus
e) Gonococcus

421. The true statement about the highest risk of delivering an infant with Down syndrome:
a) A 31-year-old woman with a balanced translocation between chromosomes 14 and 21.
b) A 39-year-old woman whose husband is 60 years old.
c) A 25-year-old woman who has a child with Down syndrome.
d) A 42-year-old woman without a family history of Down syndrome.
e) A 30-year-old woman history of recurrent spontaneous abortions.

422. The true statement about the risk of recurrence of Down syndrome is 100%:
a) Centric fusion of chromosome 21 and 14 translocation.
b) Centric fusion of chromosome 21 and 13 translocation.
c) Centric fusion of chromosome 21 and 15 translocation.
d) Centric fusion of chromosome 21 and 11 translocation.

e) If mother is a balanced 21/21 translocation carrier.

423. An adolescent girl was diagnosed with lupus and was treated with prednisone. The most likely long-term complication of prednisone:
a) Malignancy
b) Loss of hearing
c) Loss of memory
d) Loss of vision
e) Glucose intolerance

424. A child is taking statins for a very high cholesterol level. The side-effects of statins include all of the following **except:**
a) GI disturbances
b) Sleep disturbances
c) Muscle pain
d) Headaches
e) Loss of hearing

425. A 14-year-old boy appears in the ER with history of left knee pain and swelling after sudden jumping. Most likely injury:
a) Anterior cruciate ligament
b) Medial meniscus
c) Posterior cruciate ligament
d) Lateral meniscus
e) Patellar ligament

426. Most common type of migraine:
a) Classic migraine
b) Uncomplicated migraine
c) Migraine variants
d) Common migraine
e) Complicated migraine

427. Most common route of HIV-infection in pediatric population:
a) Sexual contacts
b) Blood transfusions
c) Needle pricks
d) Mosquito bites
e) Vertical transmission from mother

428. A 13-year-old boy had a history of setting fire in the school. The management includes all of the following **except:**
a) Family therapy
b) Refer to a mental health professional
c) Parental intervention
d) Community work
e) Confined in a room for 48 hours

429. Most common cardiac lesion in trisomies:
a) ASD
b) VSD
c) Aortic stenosis
d) Mitral stenosis
e) Tricuspid regurgitation

430. Hemolytic-uremic syndrome is a side-effect of the following medication:

a) Cyclophosphamide
b) Oral contraceptives
c) Bleomycin
d) Doxorubicin
e) Vincristine

431. A 14-year-old boy is diagnosed with diabetes. He is receiving insulin injection. The recommendation of insulin therapy for a regular exercise:
a) Increase the dose by 10%
b) Increase the dose by 25%
c) Increase the dose by 50%
d) Decrease the dose by 25%
e) Decrease the dose by 10%

432. A 7-year-old girl had tonsillectomy 1 month ago. The true statement after tonsillectomy:
a) Reduction in nasal allergy
b) Reduction of rheumatic fever
c) Reduction of number of infections
d) Definitive improvement in nutrition
e) Definitive improvement in respiratory infections.

433. A 7-year-old boy appears in the ER with history of pain in the right ear and tinnitus due to trauma. Physical examination reveals a perforation of the tympanic membrane with a small amount of blood in the external auditory canal. The next step in the management:
a) Hydrogen peroxide
b) Start antibiotics
c) Perform hearing test
d) Refer to a ENT doctor
e) Reassurance only

434. A 2-year-old girl was referred for a developmental assessment. All of the following tests can be performed **except:**
a) Denver II
b) Early language milestone
c) Clinical adaptive test
d) Early screening inventory
e) Age and stages questionnaires

435. Treatment for anorexia nervosa includes of all of the following **except:**
a) Nutritional therapy
b) Modification of behavior
c) Psychotheapy to patient
d) Antidepressant medication
e) Moderate exercise

436. A 8-year-old girl was brought to the ER after a car accident. She makes sounds but not understandable. She opened her eyes with painful stimulation. Her upper extremities are flexed and lower extremities are extended. Modified Glasgow Coma Scale (MGCS):
a) 4
b) 5
c) 6
d) 7
e) 8

437. Most common complication of a single-dose total body irradiation (TBI):
a) Pulmonary fibrosis

b) CNS atrophy
c) Cataract
d) Myocardial fibrosis
e) Gonadal atrophy

438. A 3-day-old male newborn appears with vomiting, lethargy, and convulsion. Physical examination reveals odor of sweaty feet. Most likely diagnosis:
a) Isovaleric acidemia
b) Methylmalonic acidemia
c) Phenylketonuria
d) Hawkinsinuria
e) Maple syrup urine disease

439. A full-term female newborn was admitted to NICU with severe meconium aspiration. She was intubated in the delivery room and was placed on a mechanical ventilator IMV 40, PIP 20, PEEP 4, FiO_2 100%. ABG reveals pH 7.24, PCO_2 60, PO_2 50, base deficit –15.4. She has both respiratory and metabolic acidosis. The next step in the management:
a) Correct respiratory acidosis before metabolic acidosis
b) Correct metabolic acidosis before respiratory acidosis
c) Correct metabolic acidosis only
d) Start dopamine drip
e) ABG is acceptable, therefore no intervention is required.

440. A child appeared in the ER with lethargy and palpitation. Physical examination revealed a hypotension and irregular heart beats. Cardiopulmonary resuscitation was failed. Mother stated that the child was receiving a prescribed drug:
a) Azithromycin
b) Alpha methyl dopa
c) Desipramine
d) AZT
e) Prednisone

441. A 9-year-old girl appears in the ER with history fever (103°F), chill, dysuria, and left flank pain. The diagnosis is UTI. The best diagnostic procedure for this patient:
a) Renal CT scan
b) VCUG
c) IVP
d) MRI
e) Ultrasonography

442. A woman is pregnant. This is her first trimester. She needs a radiologic investigation. She is worried. The true statement about the radiation effects on fetus:
a) Radiation dose up to 10 cGy is safe in all stage of development of the fetus.
b) Radiation dose of 100 cGy does not cause growth retardation
c) Radiation dose up to 15 cGy is safe.
d) Radiation dose up to 20 cGy is safe.
e) Radiation dose up to 25 cGy is safe.

443. The side-effect of rotavirus vaccine:
a) Flu-like symptoms
b) Hepatitis
c) Intussuception
d) Localized abscess
e) Malrotation

444. A 15-month-old healthy boy is due to for his MMR vaccination. His parents are healthy. His paternal uncle has a HIV infection and he lives with them. The next step in the management:
a) MMR vaccine should not be given.
b) His uncle should look for another place to live before MMR is given.
c) Give MMR in 18 months of age.
d) MMR should be given.
e) Isolate the child from his uncle.

445. Most common mode of transmission in G6PD deficiency:
a) Autosomal recessive
b) Autosomal dominant
c) X-linked recessive
d) X-linked dominant
e) Multifactorial

446. A 14-year-old boy was brought to the ER with a history of head trauma while playing baseball. He is awake and alert. Initially he was unconscious for 1-2 minutes, then he was asymptomatic. During physical examination the boy became unconscious and less responsive. Most likely diagnosis:
a) Cerebral contusion
b) Cerebral concussion
c) Subdural hematoma
d) Epidural hematoma
e) Subarachnoid hemorrhage

447. A 15-year-old girl was brought to the ER with a history of unconsciousness, a brief tonic contraction of muscles of face and extremities, and upward deviation of both eyes during gym class. She never had a seizure activity. Mother denies family history of seizure. Physical examination was unremarkable. EEG was normal. **Most likely diagnosis:**
a) Seizure disorder
b) Syncope
c) Prolonged QT syndrome
d) Status epilepticus
e) Hysteria

448. A shift to left in oxygen dissociation curve occurs in all of the following **except:**
a) Cyanotic heart disease
b) Hypothermia
c) Acidosis
d) Methemoglobinemia
e) Myoglobinuria

449. A 7-year-old boy is diagnosed to have a obstructive lung disease. All of the following are abnormal **except:**
a) Total lung capacity
b) Residual volume
c) Vital capacity
d) Functional residual capacity
e) Diffusing capacity of carbon monoxide

450. The side effect of zinc **toxicity:**
a) Liver failure
b) Renal failure
c) Pancreatic failure
d) Growth retardation
e) Acrodermatitis enteropathica

451. A 2-week-old girl appears in the clinic for a routine check up. She has biphasic stridor that is more prominent during inspiration. She has hoarseness and barking cough. **Most likely diagnosis:**
a) Subglottic hemangioma
b) Laryngeal nodule
c) Tracheomalacia
d) Croup
e) Laryngeal web

452. A 17-year-old girl has been taking retinoic acid for severe acne. She became pregnant while taking retinoic acid. The fetus may develop:
a) Turner syndrome
b) Noonan syndrome
c) Di George syndrome
d) Down syndrome
e) Klinefelter syndrome

453. A pregnant mother is diagnosed with hypothyroidism 1 week ago. She is 8 months pregnant now. Mother is worried because she was symptomatic for the last 9 months. **Most likely effect on the fetus:**
a) May cause CNS damage
b) Cardiac damage
c) Gonadal damage
d) Pulmonary damage
e) Liver damage

454. Most common posterior fossa tumor of childhood:
a) Chiasmal glioma
b) Ependymoma
c) Cerebellar astrocytoma
d) Craniopharyngioma
e) Teratoma

455. A full-term male newborn appeared with multiple congenital anomalies. He developed apneas and seizures. Physical examination reveals microcephaly, cleft lip, cleft palate, small eyes, and midline scalp defects. **Most likely diagnosis:**
a) Down syndrome
b) Trisomy 18
c) Trisomy 16
d) Trisomy 13
e) Noonan syndrome

456. Complications of hyperventilation in PPHN (persistent pulmonary hypertension) include all of the following **except:**
a) Increased cardiac output
b) Increased barotrauma
c) Pneumothorax
d) Hyperinflation of lungs
e) Decreased fluid requirement

457. A child developed anaphylactic reaction to an egg. The child should not receive the following vaccination:
a) Hepatitis B vaccine
b) DTaP
c) Hib
d) Influenza vaccine
e) IPV

458. A mother has asthma. Father is normal. She has one boy. The risk of asthma to this boy:

a) 2%
b) 4%
c) 10%
d) 25%
e) 50%

459. A full-term newborn female was born by NSVD. Physical examination reveals head circumferance is 39.5 cm, weight is 3.5 kg, and length 21 inches. **Most likely diagnosis:**
a) Normocephaly
b) Macrocephaly
c) Short stature
d) Microcephaly
e) Large for gestational age

460. A 5-year-old boy appears in a clinic for routine check-up. Physical examination reveals grade 2/6, systolic, **musical** heart murmur in the left sternal border. **Most likely diagnosis:**
a) PDA
b) VSD
c) ASD
d) Aortic stenosis
e) Innocent murmur

461. A 10-year-old girl appeared in a clinic with history of white vaginal discharge for the last 3 weeks. She had similar episodes 6 weeks ago but resolved spontaneously. Physical examination reveals normal growth and development, and mild whitish discharge from the vagina. The smear of the discharge reveals 2 to 3 WBCs per high power field and normal vaginal cells. **Most likely diagnosis:**
a) Chlamydia infection
b) Candida infection
c) Trichomonas infection
d) Normal
e) Foreign body inside the vagina

462. A 17-year-old boy appeared in the ER about 1 A.M. He is unconscious, and unresponsive to painful stimulation. The boy was intubated due to respiratory depression. Physical examination reveals hypothermia (96°F), hypotension (BP 80/50), heart rate 50 per minute, and bilateral pupillary constrictions. **The next step in the management:**
a) Atropine
b) Naloxone
c) Dopamine
d) Isoproterenol
e) Digoxin

463. The side-effect for prolonged use of phenobarbital:
a) Bradycardia
b) Hypoactivity
c) Hyperactivity
d) Respiratory stimulation
e) Hepatotoxicity

464. A 3-year-old girl is diagnosed with FTT (failure to thrive). She lives with her mother and step-father. All of the following statements are true about FTT **except:**
a) Dietary history is helpful.
b) Nonorganic FTT is more common than organic FTT.
c) Nutrional neglect is an important factor in FTT.
d) Parent-child interaction is important.
e) The recommended diet should be about 150 Kcal/kg (ideal weight)/day.

465. A 15-year-old boy was diagnosed with right ankle sprain 1 year ago. He has been receiving rehabilitation therapy for the last 1 year. He is still limping due to a right ankle problem. **The next step in management:**
a) Continue physiotherapy
b) Reassurance only
c) Put a cast in the right ankle
d) Put a whole right leg cast
e) Surgical intervention

466. Most common complication of ECMO (extra corporeal membrane oxygenation):
a) Stroke
b) Atelactasis
c) Hemolysis
d) Edema
e) Intracerebral bleeding

467. A 9-year-old girl came to a clinic for routine check up. Her mother wants to know her daughter's onset of puberty. The most important determinant factor to predict the onset of puberty:
a) Nocturnal LH pulses
b) Estrogen levels
c) Progesterone levels
d) Growth hormone levels
e) Thyroid stimulating hormone levels

468. A 5-year-old boy is diagnosed with cystic fibrosis. He developed fever (102.5°F) and respiratory symptoms. Antibiotic therapy should cover all of the following organisms **except:**
a) S. aureus
b) P. aeruginosa
c) B. cepacia
d) S. epidermidis
e) Nontypable H. influenzae

469. A full-term male newborn appears with low birth weight, prominent occiput, hypertonia, rockerbottom feet, and closed fist with the index finger overlapping the third digit (middle finger) and fifth digit (little finger) overlapping the fourth digit (ring finger). **Most likely diagnosis:**
a) Trisomy 21,
b) Trisomy 18
c) Trisomy 13
d) Trisomy 9
e) Fragile X-syndrome

470. A 13-year-old girl who is a ballet dancer. A ballet dancer commonly has the following problem:
a) Overweight
b) Mental retardation
c) Turner syndrome
d) Overeating
e) Delayed puberty

471. A preterm infant with respiratory distress syndrome was placed on a mechanical ventilator. The infant developed right pneumothorax. The most important factor causing pneumothorax in a patient on mechanical ventilator:
a) High PEEP
b) High PIP
c) Low oxygen
d) High flow rate
e) High expiratory time

472. All of the following drugs increased theophylline clearance and decreased toxicity **except:**
   a) Erythromycin
   b) Phenobarbital
   c) Phenytoin
   d) Rifampin
   e) Isoproterenol

473. Most common cause of childhood bacterial pneumonia:
   a) S. aureus
   b) Streptococcus pneumoniae
   c) Pseudomonas
   d) Streptococcus pyogenes
   e) Group B Streptococcus

474. The best diagnostic study for a congenital toxoplasmosis:
   a) Urine culture
   b) Blood culture
   c) IgG for toxoplasmosis
   d) IgM specific for toxoplasma by ISAGA (immunosorbent agglutination assay)
   e) IgM-ELISA (enzyme-linked immunosorbent assay)

475. A female child is admitted to a pediatric floor with orbital cellulitis. Most common cause of orbital cellulitis in children:
   a) Conjunctivitis
   b) Otitis media
   c) Paranasal sinusitis
   d) Pharyngitis
   e) Metastatic tumor

476. The true statement about renal tubular acidosis (RTA):
   a) In proximal RTA, 40% of sodium bicarbonate is absorbed by proximal tubule and 60% reaches to the distal tubule.
   b) In distal RTA, 85% of sodium bicarbonate is absorbed by proximal tubule, and 5 – 12% is absorbed by distal tubule.
   c) Normally 60% of sodium bicarbonate is absorbed by proximal tubule and 40% by distal tubule.
   d) In proximal RTA, serum K is elevated.
   e) In distal RTA, serum Na is elevated.

477. A 12-month-old boy is diagnosed with iron-deficiency anemia. He is drinking cow's milk. The laboratory findings include all of the following **except:**
   a) Reduced serum ferritin
   b) Reduced MCV
   c) Normal TIBC
   d) Elevated platelet counts
   e) Normal WBC counts

478. A 14-year-old girl is diagnosed with scoliosis. The other organ defect associated with scoliosis:
   a) Renal
   b) Eye
   c) Liver
   d) Cardiac
   e) ENT

479. A 10-year-old boy appeared in the ER with right knee injury while playing basket ball. Physical examination reveals swollen and tender right knee. Knee X-ray reveals a fracture through a portion of physis extending through epiphysis and into adjacent joint. Most likely diagnosis Salter-Harris type:
a) I
b) II
c) III
d) IV
e) V

480. Most common cause of ESRD (end stage renal disease) in children:
a) Glomerulonephritis
b) Focal segmental glomerulosclerosis
c) Pyelonephritis
d) Metabolic
e) Congenital renal disease

481. The drug of choice for infantile spasms:
a) Sodium valproate
b) Phenytoin
c) Phenobarbital
d) Carbamazepine
e) ACTH (adrenocorticotropic hormone)

482. The serum alpha fetoprotein is elevated:
a) Hepatoblastoma
b) Cirrhosis
c) Renal failure
d) Down syndrome
e) Fragile X-syndrome

483. A male child appears in a clinic with mental retardation. His parents are normal. His uncle is mentally retarded. Physical examination reveals enlarged testes. **The diagnosis is made by:**
a) Denver developmental test
b) Auditory testing
c) Testicular scan
d) Testicular biopsy
e) DNA analysis for CGG/CCG repeats

484. Allergic rhinits is mediated by:
a) IgA
b) IgG
c) IgM
d) IgD
e) IgE

485. The drug of choice for primary rapidly progressive coccidioidomycosis:
a) Prednisone
b) Acyclovir
c) Amphotericin B
d) Foscarnet
e) Trimethoprim–sulfamethoxazole

486. A hand, foot, and mouth syndrome is most commonly due to:
  a) Coxsackievirus A16
  b) Echovirus 6
  c) Coxsackievirus B5
  d) Enterovirus 70
  e) Coxsackievirus A2

487. Most common cause of fever in an infant younger than 3 months of age:
  a) Group B Streptococcus
  b) Group A Streptococcus
  c) E. coli
  d) Viral infection
  e) Listeria

488. A foramen ovale usually closes by:
  a) 1 month
  b) 2 months
  c) 3 months
  d) 4 months
  e) 6 months

489. A common renal manifestation of sickle cell anemia:
  a) Hematuria
  b) Kidney infection
  c) Polycystic kidney
  d) Multicystic kidney
  e) Renal artery stenosis

490. Live measles vaccine should not be given in a patient with the following conditions **except:**
  a) Malignancy
  b) Organ transplantation
  c) Active tuberculosis
  d) AIDS
  e) Family member has AIDS

491. Most common cause of primary hyperparathyroidism in children:
  a) Metastasis
  b) Maternal hyperparathyroidism
  c) Maternal hypocalcemia
  d) Parathyroid gland adenoma
  e) Parathyroid gland hyperplasia

492. The risk to offspring if father has a diabetes:
  a) 2%
  b) 4%
  c) 6%
  d) 25%
  e) 50%

493. Elevated hemoglobin A2 is associated with:
  a) Renal failure
  b) Wilson disease
  c) Adrenal failure
  d) Thalassemia
  e) Sickle cell disease

494. A female child appeared in the ER with history of first episode of a generalized convulsion that lasted for 1 to 2 minutes. She has no fever. Mother denies family history of seizure. Physical examination reveals a postictal state but otherwise normal. EEG result is normal. SMA 6 plus calcium and magnesium are normal. **The next step in management:**
a) Start Carbamezepine
b) Start phenytoin
c) No anticonvulsant is needed but a close follow-up is indicated
d) Head CT scan
e) Head MRI

495. A mother delivered a twin newborn by NSVD. Apgar scores of twin 'B' are lower than that of twin 'A'. Most likely cause of **low Apgar scores in twin 'B':**
a) Early placental separation
b) Twin 'B' is smaller than twin 'A'
c) Twin 'B' is larger than twin 'A'
d) Twin 'B' is anemic.
e) Twin 'B' is polycythemic

496. The growth factor for newborns:
a) Sodium
b) Calcium
c) Phosphorus
d) Potassium
e) Magnesium

497. The growth factor for a fetus:
a) Insulin
b) Glucagon
c) Thyroid hormones
d) Corticosteroids
e) ACTH

498. Human milk and cow's milk are similar:
a) Carbohydrate
b) Protein
c) Fat
d) Vitamin K
e) Calories

499. All of the following statements are true about breast feeding **except:**
a) Erythroblastosis fetalis is a contraindication to breast feeding.
b) Breast feeding should begin as soon as possible.
c) Mother who does not want or unable to nurse her infant should not have less sense of accomplishment or affection to her child.
d) Presence of rubella virus in breast milk is not a contraindication of breast-feeding.
e) The low vitamin K content of breast milk may cause hemorrhagic disease of the newborn.

500. A 3-year-old boy developed clumpsiness and awkward features during walking. He has difficulties in participating games. He is developmentally delayed for his age. He was born LGA (large for gestational age). At birth, the height, weight, and head circumferance were above 95 the percentile. Head CT scan revealed dilated ventricles and EEG was abnormal. **Most likely diagnosis:**
a) Brain tumor
b) Sotos syndrome
c) Ataxia-telangiectasia
d) Fragile X syndrome
e) Duchenne muscular dystrophy

501. A 9-year-old girl appears in a clinic for a routine check up. Physical examination reveals enlarged breasts, pubic hairs, and axillary hairs. **Most likely diagnosis:**
   a) Ovarian tumor
   b) Normal
   c) Pituitary tumor
   d) Adrenal tumor
   e) Posterior fossa tumor

502. A 16-year-old girl appears in the ER with history of fever (103°F), nausea, vomiting, and pain in the right upper quadrant that radiates to the right shoulder. She denied sexual activities but she had a past history of Chlamydia trachomatis vaginal infection. Physical examination revealed enlarged (3 cm) and tender liver. Liver function test results reveal SGPT (150 U/L), bilirubin 0.9 mg/dL, alkaline phosphatase 70 U/L, and SGOT (140 U/L). Serum anylase level is 37 U/L. CBC result reveals WBC count 17,600/Cu mm, polymorphs 82%, and lymphocytes 18%. Abdominal X-ray is normal. **Most likely diagnosis:**
   a) Fitz-Hugh-Curtis syndrome
   b) Cholestatic jaundice
   c) Hepatitis A infection
   d) Pancreatitis
   e) Chlamydia causing pelvic inflammatory disease

503. A 3–year-old girl appears in a clinic for routine check up. Physical examination reveals that both tympanic membranes are immobile and retracted. She has conductive hearing loss. **Most likely cause:**
   a) Aminoglycoside
   b) CMV
   c) Herpes
   d) Rubella
   e) Recurrent URI

504. A full-term newborn is diagnosed to have an upper intestinal obstruction. Most common clinical manifestation:
   a) Bilious vomiting
   b) Abdominal distension
   c) Bloody stool
   d) Hematemesis
   e) Jaundice

505. A full-term SGA (small for gestional age) male newborn was admitted to NICU. Head CT scan revealed diffuse calcifications in the brain. **Most likely diagnosis:**
   a) CMV
   b) Rubella
   c) Craniopharyngioma
   d) Toxoplasmosis
   e) Herpes

506. A 9-month-old girl recently arrived in USA. She has been drinking goat’s milk. **Most likely complication:**
   a) Tuberculosis
   b) E. coli
   c) Folic acid deficiency
   d) Hypokalemia
   e) Hypernatremia

507. A 4-year-old boy is diagnosed to have an acute appendicitis. **The surgeon should:**
   a) Talk to parents only.
   b) Not say anything to the patient.
   c) Whisper to parents
   d) Discuss in front of all concerned family members.

e) Talk to the patient and his parents.

508. A full-term female was born by NSVD. Her mother is diagnosed to have a Chlamydia trachomatis infection but she refused treatment. **The next step in management:**
a) Start oral erythromycin
b) No therapy is indicated
c) Use erythromycin eye ointment
d) Use erythromycin eye drop
e) Start oral azithromycin

509. A pregnant mother had lost a 3-year-old boy with Tay-Sachs disease. She is worried about this pregnancy. **Prenatal diagnosis can be made in first trimester by:**
a) Amniocentesis
b) Chorionic villous sampling
c) Ultrasonography
d) Leukocyte hexosaminidase A
e) Serum hexosaminidase A determination

510. A Gram-positive bacteria causing SIRS (systemic inflammatory response syndrome) is due to:
a) Endotoxin
b) Exotoxin
c) Leukotrienes
d) Prostaglandins
e) Lipoteichoic acid-peptidoglycan complex

511. A 24-week-gestational age preterm female with RDS (respiratory distress syndrome) required P-RBC (packed-red blood cells) transfusions. **Most likely cause of anemia:**
a) IVH
b) Sepsis
c) Anemia of prematurity
d) Bone marrow hypoplasia
e) Frequent withdrawal of blood samples

512. Physicians responsibilities in sports includes all of the following **except:**
a) Tell parents to allow maximum physical activities.
b) Avoid unnecessary restrictions to prevent injuries.
c) Provide health care services.
d) Allowed alternative sports.
e) Imposed restrictions when absolutely necessary.

513. A boy reaches peak height velocity between years:
a) 12 – 13,
b) 13 – 14
c) 14 – 15
d) 15 – 16
e) 16 – 17

514. A boy has been receiving oral corticosteroids for a long period of time for ulcerative colitis. Side-effects of steroid includes all of the following **except:**
a) Adrenal suppression
b) Cataracts
c) Diabetes mellitus
d) Increased immunity
e) Aseptic necrosis of femoral head

515. External male genital organs are formed by:
a) Testosterone

b) Estrogen
c) Dehydrotestosterone
d) Progesterone
e) Prolactin

516. Procoagulant factors include all of the following:
a) I, VI, IX, X
b) IV, IX, X, XII
c) II, VI, IX, XI
d) III, VII, IX, X
e) II, VII, IX, X

517. The most common associated anomaly in meningomyelocele:
a) Omphalocele
b) Hydrocephalus
c) Polycystic kidney
d) Anencephaly
e) Microcephaly

518. The most common site of spinal cord injury in a breech presentation:
a) C5 – C6
b) C6 – C7
c) C7 – T1
d) T1 – T2
e) T2 – T3

519. Preferred therapy for exercise-induced asthma:
a) Inhaled albuterol
b) Oral theophylline
c) Oral montelukast
d) Inhaled salmeterol
e) Inhaled cromolyn

520. Most common organism causing infantile diarrhea:
a) Shigella flexneri
b) Salmonella typhimurium
c) E. coli
d) Rotavirus
e) Campylobacter fetus

521. A 15-year-old girl appears with a vaginal discharge that is white, homogenous, and has a fishy odor. She had similar presentations at least 3 times in the past 3 months. She was treated adequately each time with oral metronidazole. **Most likely cause:**
a) Foreign body
b) Chlamydia
c) Group B Streptococcus
d) Syphilis
e) Gonorrhea

522. A 5-year-old boy has a cystic fibrosis with gastroesophageal reflux. The treatment for reflux includes all of the following **except:**
a) Omeprazole
b) Diet
c) Fundoplication
d) Upright position
e) Supine position

523. The factor responsible for forming testes:
   a) Testosterone
   b) Estrogen
   c) X chromosome
   d) Progesterone
   e) Testicular determining factor (TDF)

524. A full-term, LGA male was born by a cesarean section due to fetal distress. Apgar scores were 8 and 9 at 1 and 5 minutes respectively. His mother had diabetes during this pregnancy. **Most common cardiac anomaly:**
   a) VSD
   b) ASD
   c) Cardiac failure
   d) Cardiomegaly
   e) Asymmetric septal hypertrophy

525. A 6-month-old girl appears in the ER with the signs and symptoms of a right ventriculoperitoneal shunt obstruction. The shunt was placed 6 weeks ago. **The least likely clinical manifestation:**
   a) Lethargy
   b) Vomiting
   c) Fever
   d) Increased head circumferance
   e) Shunt remains depressed even after releasing pressure

526. All of the following statements are true about scabies **except:**
   a) Permethrin 5% cream is slightly more effective and less toxic than that of lindane.
   b) Persistent pruritus after treatment suggests inadequate therapy.
   c) All family members should be treated at the same time to prevent reinfestation.
   d) Bedding and clothing worn next to the skin during the 4 days before initiation of therapy should be laundered.
   e) Oral antihistamines and topical corticosteroids can relieve itching.

527. A newborn is diagnosed with congenital rubella. The most common clinical presentation:
   a) Intrauterine growth retardation
   b) Cataract
   c) Microopthalmia
   d) Sensorineural hearing loss
   e) ‘Blueberry-muffin’ skin lesion

528. A newborn physical examination revealed penile torsion with a rotation up to 55 degrees from midline. **The next step in management:**
   a) Surgical consult
   b) Unrotate the torsion immediately
   c) Observation
   d) Renal sonogram
   e) First unrotate the penis and fix it with the scrotum

529. A 6-month-old girl needs a P-RBC transfusion for anemia. Her blood type is B(+). **She should receive the following blood type:**
   a) A(+)
   b) A(–)
   c) O(+)
   d) B(–)
   e) AB(+)

530. A 8-year-old boy has been taking digoxin for the last 3 months. He appears in the ER with history of vomiting, diarrhea, diplopia, yellow or green vision, and photophobia for the last 12 hours. Physical examination reveals

bradycardia and dry mucous membranes. EKG reveals prolonged P – R intervals. **The next step in management:**

a) Intravenous hydration
b) Oral hydration
c) Stop digoxin and give digoxin-specific Fab antibodies
d) Opthalmology consult
e) Increase the digoxin dose

531. All of the following statements regarding transmission of hepatitis are true **except:**

a) A newborn may be affected by hepatitis B when mother is positive for hepatitis B surface antigen.
b) A newborn usually develops hepatitis B infection when mother is positive for hepatitis B surface antigen and she is breast feeding to the baby.
c) Blood transfusion may transmit hepatitis B and hepatitis C, if the blood is not properly screened.
d) Immune serum globulin may transmit hepatitis B, hepatitis C, and hepatitis A.
e) Both hepatitis A and hepatitis B are sexually transmitted.

532. The serum alpha feto protein level is elevated in all of the following conditions **except:**

a) Anencephaly
b) Omphalocele
c) Meningomyelocele
d) Congenital nephrosis
e) Aneuploidy

533. A full-term, healthy newborn boy is delivered. Mother wanted to give breast feeding to the baby. **When both of them are healthy, the time to start breast feeding in hours:**

a) 0 – 2
b) 2 – 3
c) 3 – 4
d) 4 – 5
e) 5 – 6

534. A male child appears in the ER with fever (102°F), pain and swelling of the right knee for the last 36 hours. Mother denies history of trauma. He had history of a throat infection 2 weeks ago. Physical examination reveals swollen and tender right knee. **The preferred diagnostic test:**

a) Blood culture
b) Ultrasonography of knee joint
c) MRI of knee joint
d) Throat culture
e) Joint fluid analysis

535. A 10-year-old boy appears in the ER with a history of pain and difficulty in vision in the left eye for the last 24 hours. He denies history of trauma. A careful ophthalmologic examination can detect all of the following **except:**

a) Papilledema
b) Optic atrophy
c) Retinal hemorrhage
d) Retinal detachment
e) Retrobulbar neuritis

536. Most common complication of a tympanostomy tube:

a) Hearing loss
b) Otorrhea
c) Cholesteatoma
d) Otitis media
e) Otitis externa

537. A 10-year-old boy appeared in a clinic with history of skin lesions for the last 12 hours. Mother stated that the boy went for swimming in a public pool 1 day prior to this rash. Physical examination reveals erythematous, macular, papular, and pustular rashes over the trunk. **Most likely organism:**
a) S. aureus
b) S. epidermidis
c) Pseudomonas
d) Klebsiella
e) Serratia

538. A 6-year-old boy appeared in the ER with periorbital and peripheral pitting edemas for the last 24 hours. His urine output was diminished. He had no fever. Physical examination revealed temperature (99°F), heart rate 105 per minute, blood pressure 88/54, bilateral pitting and periorbital edemas. Urinalysis revealed proteinuria 3+ and RBCs 1+; 24-hour urine revealed proteinuria more than 2g. The serum had a low albumin, calcium, and creatinine clearance; a high cholesterol and triglyceride. The serum C3 level is normal. **The next step in management:**
a) Renal biopsy
b) Prednisone therapy
c) Fluid restriction
d) Cyclophosphamide therapy
e) Chlorthiazide therapy

539. All of the following tumors cause a diarrhea **except:**
a) Neuroblastoma
b) Ganglioneuroma
c) VIPoma
d) Pheochromocytoma
e) Gastrinoma

540. Most common site of an ectopic pregnancy:
a) Fallopian tube
b) Peritoneum
c) Abdominal cavity
d) Ovary
e) Pelvic cavity

541. A pregnant mother is admitted in the labor floor. Ultrasonography reveals estimated fetal weight is 3.5 kg, decreased amniotic fluid volume, but normal biophysical profile. The amniotic membrane was ruptured and the fluid was stained with thick meconium. The cervix is 2 cm dilated. **The next step in the management:**
a) Immediate cesarean section
b) Induce vaginal delivery
c) Start tocolysis with $MgSO_4$
d) Amnioinfusion and fetal monitoring
e) Observation

542. A 9-year-old boy was admitted to PICU for a severe asthma attack. He was receiving aminophylline continuous infusion. The serum theophylline level was normal. The **least likely** mechanism of action of theophylline:
a) Diuretic effect
b) Stimulates diaphragmatic muscles
c) Increases endogenous catecholamines in circulation
d) Relaxes bronchial smooth muscles
e) Inhibitory effect on cyclic AMP

543. A child was referred for an ophthalmologic evaluation that revealed Kayser-Fleischer ring in both eyes. **Most likely diagnosis:**
a) Down syndrome
b) Wilson disease

c) Marfan syndrome
d) Homocysteinuria
e) Congenital rubella

544. Most potent antiinflammatory steroid:
a) Prednisone
b) Fluorohydrocortisone
c) Prednisolone
d) Hydrocortisone
e) Betamethasone

545. Pulmonary function test results in a patient with cystic fibrosis:
a) Restrictive lung disease
b) Obstructive lung disease
c) Initially restrictive, then obstructive lung disease
d) Initially obstructive, then restrictive lung disease
e) Normal lung function

546. A 28-week-gestational age preterm newborn with RDS (respiratory distress syndrome) was placed on a mechanical ventilator. Umbilical arterial and umbilical venous catheters were placed. Three hours later, physical examination revealed blanching of the right foot. **The next step in the management:**
a) Warm up the left foot
b) Warm up the right foot
c) Remove umbilical venous catheter
d) Remove umbilical arterial catheter
e) Infuse tolazoline

547. A child had a positive blood culture. After the positive result, the spinal tap was performed. 24 hours later, the child developed meningitis. **The least likely cause of meningitis:**
a) Bacteria spreads from blood to meninges
b) Bacterial spreads from sinuses
c) Bacterial spreads from otitis media
d) Bacterial spreads from nasopharynx
e) Inoculation of bacteria by the spinal puncture

548. A 14-year-old boy appears in the ER with history of pain, swelling, and redness in the left thigh for the last 3 weeks. He had history of a trauma 3 weeks ago during soccer game. The swelling and redness progressively worsened for the last 3 weeks. Physical examination revealed tenderness, swelling, and redness over the distal thigh. The left knee and the left hip have the full range of motion. X-ray revealed soft tissue swelling but normal bones. **Most likely diagnosis:**
a) Osteosarcoma
b) Osteoclastoma
c) Ewing sarcoma
d) Rhabdomyosarcoma
e) Neurofibrosarcoma

549. A pregnant mother received propranolol before she delivered a newborn. The diagnostic investigation should include:
a) ECG
b) Serum calcium
c) Serum glucose
d) Serum potassium
e) Serum sodium

550. A 26-week-gestational age newborn was placed on a mechanical ventilator for RDS. Mother wants to hold the baby. **The mother is advised:**

a) To wait until the infant is extubated.
b) To wait until the infant is 2 Kg.
c) To hold the baby now.
d) To watch the baby from outside window.
e) To touch the baby but not to hold.

551. The treatment of choice for a myoclonic seizure:
a) ACTH
b) Phenobarbital
c) Phenytoin
d) Carbamazepine
e) Sodium valproate

552. A pregnant mother received captopril for hypertension. She delivered a full-term newborn. **Most likely complication:**
a) Liver failure
b) Renal failure
c) Hypoglycemia
d) Microcephaly
e) Cardiac failure

553. A 17-year-old boy has been doing strenuous exercise. The **additional** protein is indicated per day:
a) 5 to 24 gm
b) 25 to 45 gm
c) 46 to 65 gm
d) 66 to 85 gm
e) 86 to 105 gm

554. A child usually begins to play contact sports (age in years):
a) 6
b) 8
c) 10
d) 12
e) 14

555. The peak height velocity of a girl occurs in SMR (sex maturity rating):
a) 1
b) 2
c) 3
d) 4
e) 5

556. A 14-year-old boy is diagnosed with epilepsy. He should **not** participate in the following sport:
a) Tennis
b) Bicycle
c) Swimming
d) Golf
e) Gymnastic

557. The hypertension is a characteristic feature of:
a) 21-hydroxylase deficiency
b) Carboxylase deficiency
c) 11 beta-hydroxylase deficiency
d) Beta glucosidase deficiency
e) 3 beta-hydroxysteroid dehydrogenase defect

558. All of the following statements are true about the pedestrian injury **except:**
a) Pedestrian injuries are less in a marked croswalk.
b) Education of children in pedestrian safety is useful.
c) It is the most common cause of traumatic death between 5 and 9 years.
d) Lower extremity fracture is more common.
e) Slowing speed of trafic is important in prevention of a pedestrian injury.

559. A 11-year-old girl is diagnosed to have a constitutionally tall stature. The most important parameter that decides the final height:
a) Her present height
b) Her father's height
c) Her mother's height
d) Growth hormone levels
e) Bone age

560. A 8-year-old boy appears in the ER with history of fever (102.4°F), vomiting, crampy abdominal pain, and diarrhea with mucous and blood for the last 12 hours. He is being treated with amoxicillin for a otitis media. **Most likely cause:**
a) Allergic reaction to amoxicillin
b) Complication of otitis media
c) Acute appendicitis
d) Ulcerative colitis
e) Clostridium difficile infection

561. Most common organism responsible for acute otitis media:
a) H. influenzae
b) S. pneumoniae
c) M. catarrhalis
d) S. aureus
e) Pseudomonas aerugionosa

562. A full-term newborn male was intubated in the delivery room. Apgar scores were 2, 5, 7 at 1, 5, and 10 minutes respectively. He was brought to NICU and was placed on a mechanical ventilator. Physical examination revealed grade 2-3/6 systolic murmur in lower sternal border and equal air entry in both lungs. Chest X-ray revealed mild cardiomegaly. EKG revealed S-T and T-wave changes. Reexamination at 12 hours of age revealed louder murmur and progressive deterioration of his clinical condition. The ventilator settings were adjusted accordingly. After 24 hours of age clinical condition improved and heart murmur disappeared. **Most likely diagnosis:**
a) Meconium aspiration
b) VSD
c) Mitral valve regurgitation
d) Tricuspid valve regurgitation
e) PDA

563. A 4-month-old male infant was receiving Similac with iron. He developed diarrhea. The formula was changed to soy-based formula. Then, he developed rashes and vomiting. **Most likely diagnosis:**
a) Pyloric stenosis
b) Viral gastritis
c) Upper intestinal obstruction
d) Gastroesophageal reflux
e) Soy protein allergy

564. A 6-month-old girl appeared in a clinic for vomiting and developmental delay. The girl was asymptomatic at birth. She has poor head control. Mother noticed mousy odor in her diaper. Physical examination revealed fair skin, blond hair, and eczematous skin lesions. **Most likely diagnosis:**
a) Phenylketonuria (PKU)

b) Pompe disease
c) Tay-Sachs disease
d) Maple syrup urine disease
e) Alcaptonuria

565. A routine arterial blood gas test results of a 2-week-old premature, low birth weight male infant revealed base deficit – 12 mEq/L. He was asymptomatic but was not gaining weight adequately for the last few days. In a room air, ABG revealed pH 7.23 / PCO_2 39 / PO_2 75 / base deficit –12.0. The anion gap was increased. **Most likely diagnosis:**
a) Necrotizing enterocolitis
b) Systemic infection
c) Intraventricular hemorrhage
d) Anemia of prematurity
e) Late metabolic acidosis

566. A 16-year-old boy had a left orchiopexy surgery that was performed 5 years ago. **The true statement:**
a) Left testis will remain cancer free rest of his life.
b) Left testis can turn into malignancy.
c) Surgical correction prevents malignancy.
d) Right testis will remain cancer free rest of his life.
e) Follow-up every 3 months to rule out malignancy.

567. A 4-year-old boy was diagnosed with a bacterial meningitis. The therapy was completed. The boy is ready to go home. **The next step in management:**
a) Vision test
b) Audiologic evaluation
c) Renal function test
d) EKG
e) Liver function test

568. A patient with Alport syndrome should be evaluated for:
a) Cardiac anomaly
b) Renal anomaly
c) Vision test
d) Hearing test
e) Gonadal failure

569. A 6-year-old boy had a modified Blalock-Tausig shunt for tetralogy of Fallot. About 12 hours after surgery, the boy developed respiratory distress. Chest X-ray revealed pleural effusion. **Most likely diagnosis:**
a) Hemothorax
b) Chylothorax
c) Pneuthorax
d) Hydrothorax
e) Diaphragmatic hernia

570. A child appeared with a waddling gait and short stature. Physical examination revealed bilateral bowing of lower extremities. Laboratory test results revealed reduced serum calcium, phosphorus, and 1, 25 $(OH)_2$ D; elevated alkaline phosphatase; normal PTH. X-ray of the long bone revealed widening, fraying, and cupping of metaphysis. **Most likely diagnosis:**
a) Vitamin D-dependent rickets
b) Hepatic rickets
c) Hypophosphatemic bone disease
d) Primary chondrodystrophy
e) Familial hypophosphatemia

571. A 7-day-old female infant appeared in a clinic for routine check up. Mother stated that her daughter was not drinking enough through breast feeding. Her present weight is 3.2 Kg. Her birth weight was 3.4 Kg. Physical examination was unremarkable. **The next step in the management:**

a) Start IV hydration
b) Stop breast feeding
c) Start bottle feeding
d) Give high caloric formula
e) Reassurance and continue breast feeding.

572. A 6-week-old preterm infant appeared with apnea, lethargy, poor feeding, and poor weight gain. Physical examination revealed pallor, tachypnea, and tachycardia. CBC test results revealed low hemoglobin, low hematocrit, normal MCV, normal peripheral smear, and high reticulocytes count. **Most likely diagnosis:**

a) Infection
b) Apnea of prematurity
c) Anemia of prematurity
d) Iron deficiency anemia
e) ‘ABO’ hemolytic anemia

573. A 5-week-old female infant appears with a tremor and irritability. Serum calcium level is 6.4 mg/dL and serum phosphate level is 10.5 mg/dL. Serum SMA 6 results are normal. Chest X-ray reveals normal thymic shadow. **Most likely cause:**

a) Di George syndrome
b) Cow’s milk
c) Infant of diabetic mother
d) Low birth weight infant
e) Idiopathic hypoparathyroidism

574. The true statement about maternal hygiene and breast feeding:

a) Nipple area should be kept dry.
b) Breasts should be washed before each feeding.
c) Boric acid is used to clean the breasts.
d) Use a tight brassiere.
e) Mother should not worried about infection because it is localized.

575. All of the following factors that reduce intracranial pressure (ICP) **except:**

a) Mannitol
b) High PCO_2
c) Furosemide
d) Corticosteroids
e) Morphine

576. Most common cause of acquired hypothyroidism with or without goiter:

a) Thyroid cancer
b) Iodine deficiency
c) Surgical removal of thyroid
d) Medullary endocrine neoplasia
e) Hashimoto thyroiditis (lymphocytic thyroiditis; autoimmune thyroiditis)

577. All of the following statements are true about familial adenomatous polyposis coli (APC) **except:**

a) X-linked dominant
b) Can turn into a cancer
c) Large intestine is most commonly involved.
d) Pancolectomy is indicated
e) A child with family history of APC and positive gene test should be followed with colonoscopy every 6-12 months until surgery is performed.

578. A full-term male infant is delivered by an emergency cesarean section for a fetal distress. At birth, the boy is limp, cyanotic, and has no respiratory effort. He is dried, suctioned, and stimulated. However, no clinical improvement is noted. His Apgar score is 1 for heart rate 60/minute. **The next step in the management:**
a) Chest compression
b) Intubation STAT
c) Free-flow oxygen at a rate of 10 L/minute
d) Vigorous stimulation
e) Bag-and-mask ventilation with a rate of at least 10 L/minute.

579. A 6-year-old girl appears in the ER with an injury. She has a pucture wound with a dirty nail in her left foot. She received DTaP vaccination at 2m, 4m, 6m, and 15m of age. **The next step in vaccination:**
a) No vaccination
b) Give DT (pediatric strength)
c) Give DT (adult strength)
d) Give DTaP
e) Give DTP

580. A 12-year-old boy is diagnosed with an intestinal obstruction. He is due for a surgical repair. He has been suffering from severe asthma attacks for the last 2 years. His asthma is usually controlled with a daily intake of oral prednisone and inhaled albuterol. **The management to control his asthma prior to surgery should include:**
a) 100% oxygen by mask
b) Albuterol inhalation
c) Inhaled corticosteroids
d) Intravenous corticosteroids
e) Measure serum cortisol level

581. A 3-year-old girl appears with a bilateral inguinal hernia. The girl may have an associated condition such as:
a) Ectopic ovary
b) Enlarged lymph nodes
c) Femoral hernia
d) Turner syndrome
e) Testicular feminization syndrome

582. Most common organism causing external otitis:
a) S. aureus
b) S. epidermidis
c) Candida albicans
d) Proteus mirabilis
e) Pseudomonas aeruginosa

583. A 1-day-old newborn appears with hypoglycemia. Physical examination reveals micropenis (1 cm). **Most likely diagnosis:**
a) Hyperpituitarism
b) Hypopituitarism
c) Hypoadrenalism
d) Hypogonadism
e) Hypothyroidism

584. A 10-year-old girl appears with a history of yellowish vaginal stain in her underpants for the last 3 months. Her mother is concerned. She said that her daughter’s menstrual period has not started yet. **Most likely diagnosis:**
a) Monilial infection
b) Candida infection
c) Physiologic vaginal discharge
d) Trichomonas infection
e) Gonococcal infection

585. A full-term girl was born by vaginal delivery with an assisted forcep. Physical examination reveals a right facial asymmetry particularly when the infant cries. She has a normal nasolabial folds, normal eye muscles, and no difficulty in drinking milk. **Most likely diagnosis:**
 a) Right facial nerve palsy
 b) Normal
 c) Left cerebral infarction
 d) Right cerebral infarction
 e) Congenital absence of depressor angularis oris muscle.

586. A long-term use of this medication can cause lupus-like effect:
 a) Nitroprusside
 b) Prostaglandin
 c) Nitroglycerin
 d) Hydralazine
 e) Prednisone

587. The use of this medication in a newborn may cause hypertrophic pyloric stenosis:
 a) Amoxicillin
 b) Erythromycin
 c) Digoxin
 d) Phenytoin
 e) Cyclophosphamide

588. A full-term newborn can develop apnea due to use of the following medication:
 a) Prostaglandin
 b) Theophylline
 c) Vancomycin
 d) Vincristine
 e) Cefotaxime

589. Most potent anti-inflammatory drug for treatment of allergy:
 a) Antihistamine
 b) Ibuprofen
 c) Corticosteroid
 d) Acetaminophen
 e) A & D ointment

590. All of the following statements are true about counseling a seizure patient **except:**
 a) Child should be watched closely and should have some restrictions in life.
 b) Parents should learn first aid measures for handling seizures.
 c) Gymnastic activities are not allowed.
 d) Child should be watched when swimming.
 e) Most parents and children readily adopt a long-term treatment plan.

591. A pregnant mother came for a routine follow-up in a genetic clinic. She has a 4-year-old girl who was born with a cleft lip and cleft palate. **She wants to know the risk of recurrence of cleft lip and palate:**
 a) 1%
 b) 2%
 c) 4%
 d) 9%
 e) 25%

592. A child is diagnosed to have a pleural effusion. All of the following are the characteristics of a transudative pleural fluid **except:**
 a) Total protein is less than 3 g/dL.

b) Lactate dehydrogenase level is low.
c) Total WBC count is less than 2000/mm^3
d) Predominance of monocytes
e) A ratio of pleural protein to serum protein is more than 0.5

593. The least common organism causing occult bacteremia in a 2-year-old:
a) S. pneumoniae
b) Shigella
c) Salmonella
d) H. influenza type b
e) N. meningitidis

594. All organs are big in a LGA (large for gestational age) newborn **except:**
a) Brain
b) Liver
c) Spleen
d) Heart
e) Kidneys

595. All organs are small in an asymmetric SGA (small for gestational age) newborn **except:**
a) Brain
b) Liver
c) Spleen
d) Heart
e) Kidneys

596. This child should be referred for an auditory evaluation:
a) A 3-month-old child startles at a loud sound.
b) A 6-month-old child localizes to sound presented in a horizontal plane.
c) A 15-month-old child points toward an unexpected sound or persons or to familiar objects when asked.
d) A 18-month-old child is able to follow simple directions only with gestural or visual cues.
e) A 22-month-old child points to body parts when asked.

597. The complication of a blistering sunburn in a child:
a) Squamous cell cancer
b) Malignant melanoma
c) Basal cell cancer
d) Keloid formation
e) Candida infection

598. A 3-year-old boy accidentally drank alcohol that was left on the table by his father. The boy developed convulsion. **Most likely cause of convulsion:**
a) Ethyl alcohol poisoning
b) Methyl alcohol poisoning
c) Hypoglycemia
d) Hypocalcemia
e) CNS stimulation by alcohol

599. A child’s hematologic test results reveal a hemoglobin 9 g/dL, hematocrit 27, MCV 57, hemoglobin A 90%, hemoglobin A2 5%, and hemoglobin F 5%. Blood smear reveals poikilocyte, ovalocyte, basophilic stippling, and a few target cells. **Most likely diagnosis:**
a) Normal
b) Sickle cell disease
c) Thalassemia minor
d) Iron deficiency anemia
e) Thalassemia major

600. A child's ABG (arterial blood gas) test result reveals a pH 7.35, PCO_2 60, PO_2 90, and bicarbonate 35. **Most likely condition:**
a) Respiratory acidosis
b) Normal
c) Respiratory alkalosis
d) Metabolic alkalosis
e) Compensated respiratory acidosis

601. A female child has a history of severe anaphylactic reaction to penicillin. The true statement about giving vaccination to her:
a) Do not give IPV
b) Do not give MMR
c) Give only IPV, do not give MMR
d) Give only MMR, do not give IPV
e) Give MMR and IPV; do not give other vaccinations.
f) Can give IPV, MMR, and other vaccinations.

602. A 14-year-old boy is diagnosed with a cancer. He has a severe pain. The preferred therapy for a severe pain:
a) Reassurance only
b) Acetaminophen
c) Ibuprofen
d) Morphine
e) Methadone

603. Most common indication of cardiac transplantation:
a) Hypoplastic left heart syndrome
b) Cardiomyopathies
c) Multiple cardiac tumors
d) Tricuspid atresia
e) Single ventricle

604. A 1-day-old male newborn developed generalized convulsion due to a perinatal asphyxia. **The preferred therapy for neonatal seizures:**
a) Lidocaine
b) Phenytoin
c) Paraldehyde
d) Phenobarbital
e) Lorazepam

605. The drug of choice for a status epilepticus in children:
a) Phenobarbital
b) Lorazepam
c) Phenytoin
d) Paraldehyde
e) Carbamazepine

606. The earliest prenatal diagnosis of a congenital adrenal hyperplasia:
a) Elevated 17-hydroxy progesterone level in a maternal blood.
b) Ultrasonography by an expert.
c) Elevated 17-hydroxy progesterone level in amniotic fluid.
d) HLA typing and DNA analysis in amniotic fluid cells.
e) HLA typing and DNA analysis of chorionic villi biopsy specimen.

607. A 4-year-old boy appears in the ER with a history of coughing, choking, and refuses to eat solid food. He drinks some juice in the ER. The boy has no fever. **Most likely diagnosis:**

a) Gastroesophageal reflux
b) Foreign body in trachea
c) Foreign body in esophagus
d) Foreign body in pharynx
e) Foreign body in bronchus

608. A 15-year-old girl appears in the ER with a history of peripheral loss of vision in both eyes since this morning. She denies any history of trauma. Her school performance has been deteriorating for the last 6 months. She denies headache, nausea, and vomiting. Her menstrual periods are irregular. She missed her last menstrual period. Physical examination reveals normal pupils, normal fundus, but a tunnel vision. The rest of the physical examination findings are normal. **Most likely diagnosis:**
a) Pregnancy
b) Brain tumor
c) Retinal hemorrhage
d) Retinal detachment
e) Hysterical vision loss

609. A 1-day-old female infant develops hypocalcemia. She has a mild tremor. She is admitted with a mild respiratory distress. Physical examination is unremarkable. The serum total calcium level is 6.6 mg/dL, ionized calcium level is 3.2 mg/dL, magnesium level is 2 mg/dL, and serum electrolytes are normal. **Most likely cause of early hypocalcemia in a newborn:**
a) Loss of calcium in urine
b) Transient hypoparathyroidism
c) Rickets
d) Hypopituitarism
e) Decreased calcium intake in formula

610. A 7-year-old boy appears in the ER with a history of head trauma. He is lethargic. He vomited twice in the ER. He had one episode of generalized convulsion for 1 minute duration. Mother denies history of seizure. **The best diagnostic method for a recent head trauma:**
a) Ultrasonography
b) MRI
c) Head CT scan
d) CSF examination
e) Observation and repeat neurological examination

611. A 15-year-old boy was referred to an endocrine clinic for a short stature. He has a history of vomiting and headache for the last 3 weeks especially in the morning. Headache improves after vomiting. Physical examination reveals temperature (98.6°F), pulse rate 80 per minute, respirator rate 20 per minute; height is less than 5 th percentile and weight is at 10 th percentile. Eye examination reveals a bitemporal visual defect. Skull X-ray reveals a calcification. **Most likely diagnosis:**
a) Craniopharyngioma
b) Ependymomas
c) Brain stem glioma
d) Teratoma
e) Medulloblastoma

612. A full term newborn male appears cyanotic at birth. He was intubated in the delivery room and received 100% oxygen. Maternal history of type I diabetes. The boy was placed on a mechanical ventilator with the setting of an IMV 40, PIP 20, PEEP 5, FiO_2 100%, inspiratory time 0.5 second, and flow rate 10 L/minute. Oxygen saturation is 100%. Physical examination reveals plethora, heart rate is 190 per minute, respiratory rate is 80 per minute, blood pressure 58/30, grade 3/6 systolic ejection murmur in the mid-left sternal border, and liver is palpable 5 cm below the right costal margin. Chest X-ray reveals increased pulmonary congestion. EKG reveals increased anterior and posterior forces. CBC reveals WBC count 21,000, 60% polymorphs, 40% lymphocytes, platelet count 210,000, hemoglobin 21 g/dL and hematocrit 63. **Most likely diagnosis:**
a) VSD

b) ASD
c) Pulmonic stenosis
d) Diabetic cardiomyopathy
e) Aortic stenosis

613. A 28-week-gestation age preterm girl was on a mechanical ventilator. She received a Similac 24 calories formula through an orogastric tube. She developed apnea, bradycardia, and lethargy after the feeding. Physical examination reveals an abdominal distension and decreased intestinal sounds. Abdominal X-ray reveals a free air under the right diaphragm. **The next step in the management:**
a) Upper GI series
b) Laparotomy
c) Barium enema
d) Ultrasonography
e) Repeat abdominal X-ray after 4 hours

614. A 30-week-gestational age preterm male infant is ready to receive a Similac 22 calories formula through an orogastric tube. He develops vomiting and respiratory distress after the first feeding. A nurse passed an orogastric tube with some difficulties and could not pass beyond 10 cm. **Most likely diagnosis:**
a) Intestinal perforation
b) Tracheal perforation
c) Esophageal perforation
d) Gastroesophageal reflux
e) Pyloric stenosis

615. All of the following statements are true about discipline **except:**
a) In USA, many parents use spanking regularly to achieve desired discipline.
b) Physicians should guide and educate families and help them to become a successful parent and child.
c) Some forms of corporal punishment is allowed, because the outcome is good.
d) Physicians must be empathic, flexible, and motivated to work with families.
e) Parents should use the word ‘please’ even when they disagree with the child.

616. A child appears in the ER with a history of fever (103°F), vomiting, headache, lethargy, and a focal seizure. Mother denies any trauma. Physical examination reveals right hemiparesis and bilateral papilledema. CBC reveals WBC count is 21,000, polymorphs 75%, lymphocytes 20%, monocytes 5%, platelet 195,000. Head CT scan with contrast reveals a ring-enhancing lesion in the left cerebrum. **Most likely diagnosis:**
a) Arteriovenous malformation
b) Cerebral aneurysm
c) Brain tumor
d) Brain abscess
e) Meningitis

617. A 14-year-old girl is diagnosed with a lupus. The laboratory findings include all of the following **except:**
a) Gammaglobulin levels are decreased in serum.
b) Anti-Smith (sm) antibody is present in SLE but does not measure the disease activity.
c) Anti-DNA is more specific for lupus.
d) Antinuclear antibody (ANA) is not specific for lupus.
e) CH_{50}, C3, and C4 are decreased in an active disease

618. A 32-week-gestational age preterm male infant was diagnosed with a necrotizing enterocolitis and intestinal perforation. About 55 cm of the small intestinal (ileum) was removed. He developed short gut syndrome. Total parenteral nutrition (TPN) was started. He developed dry, thickened, and desquamated skin all over the body. **The most likely cause:**
a) Eczema
b) Vitamin deficiency
c) Zinc deficiency
d) Icthyosis

e) Lipid deficiency

619. First permanent teeth appears (in years):
a) 3 – 4
b) 4 – 5
c) 5 – 6
d) 6 – 7
e) 7 – 8

620. A full-term male newborn is diagnosed with a severe perinatal asphyxia. The usual arterial blood gas findings:
a) pH 7.30
b) PaO_2 75
c) PCO_2 30
d) Bicarbonate 18
e) Base deficit 20 or more

621. All of the following statements are true about nutritional requirements **except**:
a) Fat and cholesterol should be restricted to all children.
b) Full term infants water requirement is 70 – 150 mL/kg/day.
c) Preterm infants water requirement is 85 – 170 mL/kg/day.
d) Infants water content is 75 – 80% of body weight.
e) Infants daily consumption of fluid is 10 – 15% of body weight.

622. A 5-year-old girl appears in a clinic for a routine check up. Her mother had history of enuresis. The incidence of enuresis if one parent was enuretic:
a) 22%
b) 33%
c) 44%
d) 55%
e) 77%

623. A 14-year-old boy developed rhabdomyolysis due to a heavy exercise. In rhabdomyolysis, renal damage is most likely due to:
a) Hemoglobinuria
b) Tissue thromboplastin
c) Myoglobinuria
d) Haptoglobinuria
e) Idiopathic

624. Taste bud reduced or absent in which of the following condition:
a) Scarlet fever
b) Niacin deficiency
c) Diabetes
d) Pernicious anemia
e) Riley-Day syndrome

625. A 7-year-old boy appears in the ER with a broken teeth. His mother gave history of trauma. The boy refused to talk. **The physician should rule out:**
a) Autism
b) Psychiatric problems
c) Hearing loss
d) Child abuse
e) ADHD (attention deficit hyperactivity disorder)

626. In newborns, eye-fixation occurs in:
a) First day

b) Third day
c) Seventh day
d) One month
e) Six months

627. A 3-day-old female newborn is admitted to NICU for rule out sepsis. She is treated with ampicillin and gentamicin. She is drinking Similac 20 calorie formula 15 mL every three hours plus intravenous D_{10} water, total 100 mL/kg/day. The serum electrolytes result reveals Na 125, K 3.6, Cl 96, glucose 80, BUN 8, and creatinine 0.8. Urine specific gravity is 1010. **Most likely diagnosis:**
a) Diabetes insipidus
b) Laboratory error
c) Increased ADH secretion
d) Pseudohyponatremia
e) Maintenance sodium chloride was not given

628. A 12-month-old boy is admitted with meningitis. The boy is treated with third generation cephalosporin. The boys is kept NPO and intravenous fluid is given. After 36 hours, the boy drinks 240 mL of orange juice at a time. About 2 hours later, the boy developed a generalized convulsion for 30 seconds. The serum electrolytes result reveals Na 122, K 4, Cl 92, glucose 76, BUN 4, and creatinine 0.4. Urine specific gravity is 1027. Urine output is 0.2 mL/kg/hour. **Most likely diagnosis:**
a) Increased ADH secretion
b) Diabetes insipidus
c) Pseudohyponatremia
d) Laboratory error
e) Hyponatremic dehydration

629. A premature newborn keeps his eyes closed until light is removed. **This response is first noted at gestational age:**
a) 25 weeks
b) 28 weeks
c) 29 weeks
d) 32 weeks
e) 37 weeks

630. In DiGeorge syndrome, the defect in the pharyngeal pouch:
a) 1st and 2nd
b) 2nd and 3rd
c) 3rd and 4th
d) 4th and 5th
e) 5th and 6th

631. The deficiency of an enzyme in Pompe’s disease (type II glycogenesis):
a) Acid alpha-glucosidase(Acid maltase)
b) Glucose 6 phosphatase
c) Muscle phosphorylase
d) Acid lapase
e) Beta-glucosidase

632. A HIV-infected severely immunocompromised child should receive all of the following vaccinations **except:**
a) DTaP
b) IPV
c) Influenza
d) MMR
e) Varicella

633. Disseminated gonococci and meningococci infections are due to deficiency of the following complements **except:**

a) C2
b) C5
c) C6
d) C7
e) C8

634. A 10-month-old female child was admitted and treated with meningitis. She improved initially. A few days after the onset of antibiotic therapy, she developed recurrence of fever and vomiting. Physical examination revealed increased head circumferance, bulging fontanel, and separation of sutures. Transillumination revealed enhanced state of glowing. **Most likely diagnosis:**
a) Recurrence of meningitis
b) Subdural effusion
c) Subarachnoid hemorrhage
d) Intraventricular hemorrhage
e) Hydrocephalus

635. Most common cause of alopecia in a newborn:
a) Ectodermal dysplasia
b) Seborrheic infection in scalp
c) Toxic alopecia
d) Trichotillomania
e) Positional

636. The least likely cause of calcification:
a) Pheochromocytoma
b) Neuroblastoma
c) Retinoblastoma
d) Wilms tumor
e) Craniopharyngioma

637. The characteristic rash present in Lyme disease:
a) Erythema multiforme
b) Erythema infectiotum
c) Erythema toxicum
d) Erythema nodosum
e) Erythema migrans

638. Erythromycin is effective in all of the following organisms **except:**
a) Mycoplasma pneumoniae
b) Chlamydia trachomatis
c) E. coli
d) Legionella pneumophilia
e) Bordetella pertussis

639. In tick paralysis, the tick is present:
a) Lymph nodes
b) CSF
c) Blood
d) Muscle
e) Skin

640. A 10-day-old male newborn is diagnosed to have a cystic fibrosis. Sweat chloride test results are normal. The most likely interpretation:
a) He does not have a cystic fibrosis.
b) Sweat chloride test results are always abnormal in a cystic fibrosis newborn.
c) A sweat chloride test should not be performed before 1 year of age.

d) Sweat chloride test results are not reliable in first week of life.
e) Sweat chloride test should be performed after 6 months of age.

641. A true statement about the growth in diabetic patients:
a) Diabetes has no relation with the growth.
b) Diabetic patients are taller than their peers.
c) Diabetic patients are heavier than their peers.
d) Insulin is a growth hormone for children.
e) A well-controlled patient should have normal growth and development.

642. A child with a sickle cell disease should receive prophylactic therapy:
a) Rifampin
b) INH
c) Erythromycin
d) Penicillin
e) Zithromycin

643. The true statement about T4/T8 ratio:
a) Normal ratio is more than 1.0
b) In AIDS patient, ratio is always reversed.
c) A reversed ratio is an absolute sign of serious T cell deficiency.
d) In advanced AIDS patient, there is loss of nearly all T8 cells.
e) A reversed ratio should not be due to an error in handling specimen.

644. A 4-month-old male child appears in the ER with vomiting and abdominal distension for the last 10 hours. He was born premature and stayed in the hospital for 2 months. Physical examination reveals temperature (98.6°F), heart rate 120 per minute, respiratory rate 35 per minute, distended abdomen, and a right scrotal mass. The mass is not reducible and does not transilluminate well. **The appropriate management:**
a) Continue oral hydration therapy
b) Surgical repair
c) Perform barium enema
d) Start ampicillin and gentamicin
e) Perform upper GI series

645. A female child is admitted with H. influenzae type b meningitis. She recently arrived from another country. She is treated with cefotaxime and dexamethasone. Her temperature becomes normal after 24 hours of therapy. After 48 hours, dexamethasone is discontinued. She developed fever (101°F) again. **Most likely cause and its management:**
a) Recurrence of meningitis
b) Start ceftriaxone
c) Resume dexamethasone
d) Head CT scan to rule out subdural effusion
e) Reassurance

646. A male child is diagnosed with a streptococcal meningitis. He is treated with cefotaxime and vancomycin. About 24 hours after the onset of therapy, the boy developed a generalized convulsion for 1 minute duration. **The preferred therapy for convulsion:**
a) Carbamazepine
b) Phenobarbital
c) Initially lorazepam followed by phenytoin
d) Initially diazepam followed by phenobarbital
e) Paraldehyde

647. A 3-week-old male infant is diagnosed with hypertrophic pyloric stenosis. Ramstedt pyloromyotomy is performed. After the surgery, vomiting is stopped. Radiological study revealed narrowing of the pyloric canal. **The next step in management:**

a) Repeat the surgical procedure
b) Endoscopic balloon dilatation
c) NPO and intravenous hydration
d) Corticosteroids to reduce the edema
e) Reassurance

648. Most common mode of transmission of HIV infections in children younger than 13 years:
a) Heterosexual contacts
b) Blood transfusions
c) From HIV-infected household members
d) Horizontal transmitted from HIV-infected mothers.
e) Vertical transmission from HIV-infected mothers.

649. A male newborn had circumcision without anesthesia. All of the following hormones are elevated during a procedure without anesthesia **except:**
a) Catecholamines
b) Corticosteroids
c) Growth hormone
d) Insulin
e) Glucagon

650. A 6-hour-old female newborn develops jaundice. Her mother is O(+). The infant is A(+) and Coombs (+). Initial serum bilirubin level is 12 mg/dL. The infant is placed under triple Phototherapy. At 24 hours of age, the serum bilirubin level rapidly went up to 28 mg/dL. The girl developed bilirubin encephalopathy. The double volume exchange transfusion was performed with a whole blood. The serum bilirubin level is 19 mg/dL after the exchange transfusion. She went home after 5 days. The serum bilirubin level was 12.5 before discharge.
The late manifestations of kernicterus includes all of the following except:
a) Blindness
b) Dental dysplasia
c) Seizures
d) Motor disorders
e) Choreoathetoid movements

651. The postoperative complication of total adrenal removal:
a) Hypopigmentation
b) Decreased ACTH
c) Small pituitary mass
d) Small pituitary fossa
e) Nelson syndrome

652. Most common clinical manifestation of congenital toxoplasmosis:
a) Chorioretinitis
b) CNS calcification
c) Thrombocytopenia
d) Hepatosplenomegaly
e) Asymptomatic

653. Most common clinical manifestation of CMV infection:
a) Asymptomatic
b) Periventricular calcification
c) Chorioretinitis
d) Thrombocytopenia
e) Microcephaly

654. Folic acid supplementation in a pregnant mother reduces which of the following defect in fetus:
a) Cardiac

- b) Renal
- c) CNS
- d) Thyroid
- e) Pulmonary

655. Mitral valve prolapse is found in all of the following conditions **except:**
- a) Marfan syndrome
- b) Down syndrome
- c) Scoliosis
- d) Pectus excavatum
- e) Straight back syndrome

656. Long-term effect in a child with lead toxicity:
- a) Psychiatric problem
- b) Seizures
- c) Brain atrophy
- d) Osteoid osteoma
- e) Learning difficulty

657. Most **prevalent** sexually transmitted disease (STD) in adolescents:
- a) Chlamydia trachomatis infection
- b) Human papilloma virus (HPV) infection
- c) Treponema pallidum infection
- d) Candida infection
- e) Herpes infection

658. Most **common** sexually transmitted disease (STD) in adolescents:
- a) Chlamydia infection
- b) HPV infection
- c) Syphilis
- d) Candida infection
- e) Herpes infection

659. CIE (counter immunoelectrophoresis) in CSF and urine can detect all of the following organisms **except:**
- a) E. coli
- b) Gonococci
- c) Pneumococci
- d) H. influenzae type b
- e) Meningococci

660. A 8-year-old boy is receiving both regular and NPH insulin injections in morning and evening hours (8 A.M. and 8 P.M.) everyday. His early morning blood sugar levels are usually elevated (200 mg/dL). His noon time blood sugar level was 100 yesterday. **The next step in the management:**
- a) Increase last P.M. dose of NPH
- b) Decrease last P.M. dose of NPH
- c) Decrease this A.M. dose of regular insulin
- d) Increase this A.M. dose of NPH
- e) Increase this A.M. dose of regular insulin

661. A 12-year-old girl is receiving both regular and NPH insulin injections in 8 A.M. and 8 P.M. everyday. His serum glucose level at 10 P.M. is 60 mg/dL (low). The serum glucose levels in other times are normal. **The next step in the management:**
- a) Increase the P.M. dose of regular insulin.
- b) Decrease the A.M. dose of NPH insulin.
- c) Decrease the P.M. dose of regular insulin.
- d) Increase the P.M. dose of NPH insulin.
- e) Decrease the P.M. dose of NPH insulin.

662. A child has a bacterial sinusitis. Most common associated infection:
a) Otitis media
b) Pharyngitis
c) Tonsillitis
d) Retropharyngeal abscess
e) Brain abscess

663. A 9-year-old boy has HIV infection. He developed acute sinusitis. He was treated with amoxicillin-clavulate. His clinical condition did not improve despite antibiotic therapy. X-ray of sinuses reveal mucosal thickening, air-fluid levels, and sinus opacification. **The best diagnostic study for this patient:**
a) Sinus aspirate
b) Nasal swab cultures
c) Blood culture
d) Urine culture
e) Gram stain of nasal aspirate

664. A 1-day-old male infant appears jaundice. The serum bilirubin level is 12 mg/dL. His peripheral blood smear reveals spherocytes. **Most likely diagnosis:**
a) G6PD deficiency
b) ‘ABO’ hemolytic disease
c) Rh hemolytic disease
d) Physiologic jaundice
e) Sepsis causing jaundice

665. In fetal alcohol syndrome, impairment of placental transfer of:
a) Calcium
b) Magnesium
c) Phosphorus
d) Zinc
e) Selenium

666. A 1-year-old boy swallowed some unknown quantities of drug pills. The bottle containing drug has no label. He vomited once at home and once in the ER. Physical examination reveals a bulging fontanelle and lethargy. **Most likely cause of toxicity:**
a) Vitamin A
b) Vitamin B_1
c) Vitamin C
d) Vitamin E
e) Vitamin B_6

667. A 6-year-old girl appears in the ER with history of a dog bite on the face and skull 2 hours ago. All of the following are important in evaluation of this patient **except:**
a) Complete history
b) Skull X-ray
c) Wound culture
d) Diagram of the injury should be recorded in the chart.
e) Depth and severity of the injury.

668. All of the following statements are true about herpes zoster virus (HSV) infection **except:**
a) Wrestlers with HSV cutaneous lesions should not participate in wrestling.
b) Open lesions should be covered.
c) Acyclovir decreases the rate of recurrence.
d) Chicken pox does not occur after herpes zoster infection.
e) Children are allowed to go to school if herpetic lesions are covered.

669. The virus can cause Burkitt’s lymphoma:
    a) Herpes virus
    b) Varicella virus
    c) CMV
    d) Respiratory syncitial virus
    e) Epstein-Barr virus (EBV)

670. Histologic findings of a Reed-Sternberg cell suggest the following disease:
    a) Neuroblastoma
    b) Pheochromocytoma
    c) Acute lymphocytic leukemia
    d) Chronic myelogenous leukemia
    e) Hodgkin’s disease

671. Most common cause of opthalmia neonatorum:
    a) Chlamydia trachomatis
    b) N. gonorrhoeae
    c) Pseudomonas aeruginosa
    d) S. aureus
    e) Adenovirus

672. Acrodermatitis enteropathica is a sign of:
    a) Zinc toxicity
    b) Selenium deficiency
    c) Zinc deficiency
    d) Copper deficiency
    e) Magnesium toxicity

673. An infant develops jaundice. The best way to distinguish biliary atresia from neonatal hepatitis:
    a) Ultrasonography of liver
    b) Serum direct bilirubin
    c) Hepatobiliary scan
    d) Serum alkaline phosphatase
    e) Abdominal CT scan

674. The predominate source of bleeding in a newborn with pulmonary hemorrhage:
    a) Interalveolar vessels
    b) Intraalveolar vessels
    c) Bronchial arteries
    d) Pulmonary arteries
    e) Bronchial veins

675. A symbolic play (symbol rather than words) manifest at:
    a) 1 year
    b) 2 years
    c) 3 years
    d) 4 years
    e) 5 years

676. A child appears with ritualistic movements and absence of eye contact:
    a) Normal
    b) Blindness
    c) Deafness
    d) Autism
    e) Bilirubin encephalopathy

677. A 2-year-old boy appears with fever (103°F) and cough for the last 3 days. Past medical history revealed three episodes of pneumonia, one episode of meningitis, and four episodes of otitis media. Blood culture is performed. **The next diagnostic study:**
a) Spinal tap
b) Chest X-ray
c) Urine culture
d) Serum immunoglobulins
e) Lung CT scan

678. A 10-year-old girl appears in a clinic for obesity. Her mother is concerned. The best way to confirm obesity:
a) Weight
b) Height
c) Waist size
d) Body mass index
e) Arm circumferance

679. A 24-week-gestational age preterm infant is kept NPO plus TPN (total parenteral nutrition). The infant develops dry, scaly dermatitis. **Most likely cause:**
a) Zinc deficiency
b) Lipid deficiency
c) Protein deficiency
d) Copper deficiency
e) Iron deficiency

680. Most common cause of cholestatic jaundice in NICU:
a) Hepatitis
b) 'ABO' hemolytic disease
c) Rh hemolytic disease
d) Galactosemia
e) TPN (total parenteral nutrition)

681. A 3-year-old boy appears in a clinic with mild lordosis and protuberant abdomen. **The next step in management:**
a) X-ray of vertebrae
b) Abdominal sonogram
c) CT scan of spine
d) Orthopedic referral
e) Reassurance

682. Most common cause of secondary hypertension in children:
a) Aortic coarctation
b) Portal vein thrombosis
c) Umbilical arterial catheter
d) Pheochromocytoma
e) Renal abnormality

683. The side-effect of a beta-blocking agent (e.g., propranolol):
a) Tachycardia
b) Increased exercise tolerance
c) Bronchodilatation
d) Decreased serum lipids
e) Vivid dreams

684. A 4-year-old girl appears in the ER with bilateral periorbital ecchymoses due to a fall accidentally onto her head. Mother denies history of vomiting, seizure, and unconsciousness. This accident happened at the park

while she was playing. The girl is active, alert, and responsive. Physical examination is unremarkable except bilateral ecchymoses. **The next step in the management:**
a) Observe the patient for 6 hours in the ER.
b) Discharge the patient home with a follow-up in the clinic next day.
c) Spinal tap
d) Opthalmologic consultation STAT
e) Head CT scan

685. A 16-year-old girl appears in a clinic with history of headache without vomiting for the last 3 months. She has a bitemporal headache that occurs daily. She denies seizure and neurological symptoms. Physical examination reveals a normal visual activity but blurring of the optic disc margin. The rest of the examination is normal. **Most likely diagnosis:**
a) Brain tumor
b) Migraine
c) Pseudotumor cerebri
d) Viral meningitis
e) Glaucoma

686. Most common cause of postgonococcal urethritis:
a) Chlamydia trachomatis
b) S. aureus
c) Treponema pallidum
d) Virus
e) Gonococcus

687. Most common methicillin resistant S. aureus (MRSA) strain:
a) Phage group I
b) Phage group II
c) Phage group III
d) Phage group IV
e) Nontypable

688. The cranial nerve involved in type II Chiari malformation:
a) VII
b) IX
c) X
d) XI
e) XII

689. A 17-year-old girl appears in the ER with dystonia or athetosis. She took several carbamazepine tablets. The preferred therapy for a drug-related dystonia:
a) Intravenous diazepam
b) Oral lorazepam
c) Intravenous lorazepam
d) Intravenous diphenhydramine
e) Perrectal paraldehyde

690. A 3-year-old child is diagnosed with a extrapyramidal (athetoid) cerebral palsy. Physical examination reveals all of the following **except:**
a) Delayed gross motor
b) Normal fine motor
c) Delayed speech
d) Normal intelligence
e) Normal problem solving

691. Most common organism responsible for a nosocomial infection:

a) S. aureus
b) Streptococcus viridans
c) S. epidermidis
d) Pseudomonas aeruginosa
e) Chlamydia trachomatis

692. A 12-month-old girl is diagnosed with Werdnig-Hoffman disease. The cranial nerve involved in this disease.
a) VII
b) IX
c) X
d) XI
e) XII

693. A 6-year-old boy appears in the ER with history of fever (101°F), diarrhea, abdominal cramp, and passage of stool containing blood and mucus. He is taking penicillin for acute tonsillopharyngitis. The management may include all of the following **except:**
a) Use cholestyramine
b) Use metronidazole
c) Discontinue penicillin
d) Oral metronidazole is preferred therapy for most children.
e) Oral vancomycin

694. Side effects of cyclophsphamide include all of the following **except:**
a) Leukocytosis
b) Hemorrhagic cystitis
c) Alopecia
d) Sterility
e) Disseminated varicella infection

695. A 8-year old boy appears in a clinic for a routine check up. Urinalysis reveals microscopic hematuria. He is asymptomatic. Physical examination is unremarkable. **Most likely diagnosis:**
a) Nephrotic syndrome
b) Acute glomerulonephritis
c) Polycystic kidney
d) Renal stone
e) Absence of renal disease

696. A female child is admitted with DIC (disseminated intravascular coagulation). Her laboratory findings include all of the following **except:**
a) Increased fibrin split product
b) Increased d-dimer
c) Increased fibrinogen
d) Prolonged PT and PTT
e) Decreased factor VIII, II and V

697. A 12-year-old boy is receiving warfarin anticoagulation therapy for his mechanical heart valve. The dose of warfarin should be adjusted for an effective therapy. The goal is keep INR (international normalized ratio) between:
a) 1.1 to 1.4
b) 1.5 to1.9
c) 2 to 2.5
d) 2.6 to 2.9
e) 3 to 4

698. The antidote for overdose of heparin:
a) Vitamin K

b) Fresh frozen plasma
c) Blood transfusion
d) Factor VIII
e) Protamine sulfate

699. A pregnant mother is diagnosed with hyperparathyroidism. The newborn is delivered. **Most likely effect on the newborn:**
a) Hypocalcemia
b) Hypercalcemia
c) Hyperparathyroidism
d) Hypermagnesemia
e) Hypophosphatemia

700. Angiotensin I (inactive decapeptide) is formed in:
a) Liver
b) Kidneys
c) Lungs
d) Adrenals
e) Pancreas

701. Angiotensin II (active octapeptide) is formed in:
a) Liver
b) Kidneys
c) Lungs
d) Adrenals
e) Pituitary

702. A 4-day-old 26 weeks gestational age preterm infant on a mechanical ventilator developed PDA (patent ductus arteriosus) murmur. The fluid was restricted. However, the murmur was audible and PDA was confirmed by an echocardiogram. **Indomethacin therapy is contraindicated when:**
a) BUN value is 18 mg/dL
b) Platelet count is 55,000
c) Creatinine level is 1.9 mg/dL
d) Necrotizing enterocolitis
e) Urine output is 1.1 mL/Kg/hour

703. A 6-week-old 26 weeks gestational age preterm infant is on a mechanical ventilator. The ventilator setting is IMV 30, PIP 20, PEEP 5, Fio_2 35%, inspiratory time 0.45 second, and flow rate 8 L/minute. ABG reveals pH 7.50, PCO_2 59, PO_2 80, HCO_3 34, base excess +3.5. Most likely diagnosis:
a) RDS (respiratory distress syndrome)
b) Pneumothorax
c) Pulmonary hemorrhage
d) PIE (pulmonary interstitial emphysema)
e) BPD (bronchopulmonary dysplasia)

704. A 30-week-gestational age premature infant has been passing 5 to 6 stools per day for the last 3 days. All stools are semi-solid in consistency. **Most likely diagnosis:**
a) Normal
b) Diarrhea
c) Necrotizing enterocolitis
d) Milk protein allergy
e) Pseudomembranous colitis

705. A child appears with a rapidly progressive cavernous hemangioma, thrombocytopenia, and microangiopathic hemolytic anemia. **Most likely diagnosis:**
a) Osler-Weber-Rendu disease

b) Sturge-Weber syndrome
c) Kasabach-Merritt syndrome
d) EEC syndrome
e) LEOPARD syndrome
f)

706. A child appears with Christmas tree pattern lesions over the trunk and proximal limbs. The lesions are oval or round, slightly raised, pink to brown, and less than 1 cm diameter.
a) Scabies.
b) Pemphigus vulgaris
c) Vitiligo
d) Nummular eczema
e) Pityriasis rosea

707. All of the following statements are true about SIDS (sudden infant death syndrome) **except:**
a) Elimination of prenatal smoking reduces the risk of SIDS due to increased birth weight of an infant.
b) The risk of SIDS progressively increases as birth weight decreases.
c) Both prone and side sleeping increase the risk of SIDS.
d) SIDS patients have decreased immunization and decreased routine office visits.
e) SIDS occurs most likely due to brain stem developmental abnormality.

708. An infant is diagnosed with a congenital cerebral neoplasm. Most likely clinical manifestation:
a) Headache
b) Bradycardia
c) Hydrocephalus and increased intracranial pressure
d) Seizure
e) Papilledema

709. Steven-Johnson syndrome may develop due to an infection caused by:
a) S. aureus
b) Streptococcus pneumoniae
c) Chlamydia trachomatis
d) Mycoplasma pneumoniae
e) Pseudomonas aeruginosa

710. All of the following statements are true about Campylobacter jejuni infection **except:**
a) Abdominal pain mimics appendicitis.
b) Stool culture is a confirmatory test.
c) Infants and children in diapers with symptomatic infection should not participate in child care.
d) Stool cultures should be performed in all exposed and asymptomatic children.
e) An asymptomatic person can handle food if appropriate hygienic measures are taken.

711. All of the following conditions can cause an obstructive lung disease **except:**
a) Meconium aspiration
b) Asthma
c) Pneumothorax
d) Bronchiolitis
e) Bronchopulmonary dysplasia

712. All of the following conditions can cause a restrictive lung disease **except:**
a) Emphysema
b) Pneumonia
c) Diaphragmatic hernia
d) Atelactasis
e) Tuberculosis

713. The true statement about the effects of cocaine use:

a) Hypertension
b) Increased fatigue
c) Physical dependence
d) Decreased sexual activities
e) Bradycardia

714. A pregnant woman received phenytoin during pregnancy for seizure disorder. **The most likely effect on the newborn:**
a) Sedation
b) Nasal congestion
c) Bleeding
d) Hypertrophic nails
e) Truncus arteriosus

715. The correct composition of OHS (oral hydrating solution):
a) Na 90, K 40, Cl 85, bicarbonate 30, glucose 140, osmolality 290
b) Na 75, K 40, Cl 50, citrate 10, glucose 120, osmolality 300
c) Na 45, K 20, Cl 35, citrate 30, glucose 140, osmolality 250
d) Na 45, K 40, Cl 35, citrate 20, glucose 140, osmolality 260
e) Na 90, K 20, Cl 35, bicarbonate 40, glucose 140, osmolality 310

716. A male child is diagnosed to have HIV positive and is being treated with zidovudine (ZDV). A routine CBC result reveals anemia and granulocytopenia. The dose of ZDV is reduced. The repeat CBC reveals a normal result. **The next step in the management:**
a) Decreased ZDV dosage should be continued.
b) Increased the ZDV dose to a previous level.
c) Discontinue ZDV and start didanosine (ddI)
d) Discontinue ZDV and start indinavir
e) Give both didanosine and indinavir

717. The drug of choice for PCP (Pneumocystis carinii pneumonia) prophylaxis:
a) Penicillin
b) Rifampin
c) Amoxicillin
d) Pentamidine
e) Trimethoprim-sulfamethoxazole

718. A pregnant mother is diagnosed with HIV positive. She delivered a 3.4 kg healthy male newborn. **The next step in management:**
a) Start zidovudine 6 mg/kg/day divided Q.6.hours, orally for first 6 weeks.
b) Start zidovudine 8 mg/kg/day divided Q.6.hours, orally for first 6 weeks
c) No therapy is indicated.
d) Perform a HIV test for the newborn and wait for the result.
e) Start zidovudine 8 mg/kg/day divided Q.6.hours, orally for first 1 month

719. The best diagnostic study in HIV infection:
a) HIV RNA PCR
b) HIV DNA PCR
c) HIV culture
d) P 24 antigen
e) IgM anti-HIV

720. A pregnant mother has been receiving an anticonvulsant medication throughout this pregnancy. The newborn appears with hypertelorism, flattened nose, and hypoplastic nails. **The anticonvulsant medication is:**
a) Phenobarbital
b) Carbamazepine

c) Lorazepam
d) Paraldehyde
e) Phenytoin

721. The preferred therapy for all drug withdrawals in infants:
a) Phenobarbital
b) Morphine
c) Phenytoin
d) Tincture of opium
e) Diazepam

722. Most common pneumonia due to virus:
a) Rhinovirus
b) RSV
c) Echovirus
d) Herpes
e) CMV

723. A male child with history of coughing and vomiting was brought in the ER by his mother after accidental ingestion of gasoline. Physical examination reveals normal vital signs and an unremarkable physical findings. Chest X-ray is normal. **The next step in management:**
a) Start antibiotics
b) Intubate the child
c) Perform arterial blood gas
d) Do lung function test
e) Observe for 6 hours in ER before being discharge and should return to hospital if any symptoms develop.

724. A newborn appears with congenital scoliosis. Most common associated anomaly:
a) Cardiac
b) CNS
c) Pulmonary
d) Renal
e) VATER syndrome

725. A lactating mother is receiving a medication. She is concerned about the transmission of the medication through the breast milk. The best way to detect how much medicine the baby is receiving:
a) Peak serum level
b) Troph serum level
c) Serum total protein level
d) Binding of the drug with serum protein
e) Quantity of medicine in breast milk

726. The velocity curve of a component of human brain reveals **‘double peaks’**. Most likely the component is:
a) Brain weight
b) Brain RNA
c) Brain DNA
d) Brain cholesterol
e) Brain mitochondria

727. In a female child with anorectal anomaly, colostomy is indicated in all of the following conditions **except:**
a) Perineal fistula
b) Vestibular fistula
c) Persistent cloaca
d) Rectal atresia
e) Imperforate anus without fistula

728. The best indicator in amniotic fluid to detect the lung maturity of the fetus:
   a) Lecithin (L)
   b) Sphingomyelin (S)
   c) L : S ratio
   d) Phosphatidylglycerol
   e) Phosphatidylinositol

729. A child appears in ER with dehydration and generalized seizure. Physical examination reveals bulging fontanelle and quadriparesis. **Most likely diagnosis:**
   a) Herpes infection
   b) Brain tumor
   c) Subdural hemorrhage
   d) Subarachnoid hemorrhage
   e) Sagittal sinus thrombosis

730. A 16-year-old boy went to Mexico. He developed severe watery stools with crampy abdominal pain and vomiting. He denies any fever. Stools have no blood. He was admitted to a hospital for dehydration. Stood culture was positive for E. coli. Most common type of E. coli responsible for his diarrheal episode:
   a) Enteropathogenic E. coli
   b) Enteroinvasive E. coli
   c) Enterotoxigenic E. coli
   d) Enteroaggregative E. coli
   e) Shigatoxin-producing E. coli

731. A 8-hour-old female newborn vomited a large amount of blood stained materials in a regular nursery. She was born by NSVD with Apgar scores 8 and 9 at 1 minute and 5 minutes respectively. Materal history reveals an abruptio placenta. Physical examination reveals a soft abdomen. She is active and alert. Her vital signs are normal. **The next step in management:**
   a) Perform PT and PTT
   b) Give vitamin K
   c) Perform an abdominal X-ray
   d) Perform Guiac test of the vomiting material
   e) Apt test

732. A female infant follows moving objects for 180 degrees. She smiles on social contact. She listens to voice and coos. She predominates a tonic neck posture. She sustains head-to-body plane on ventral suspension. She has no head control. She cannot sustain a social contact. **Most likely age in months:**
   a) 1
   b) 2
   c) 3
   d) 4
   e) 5

733. A 34-week-gestational age preterm male newborn delivered by NSVD. His mother had a history of preeclampsia. Her platelet count is 72,000. **The newborn's CBC usually reveals:**
   a) WBC count (35,000), polymorphs (80%), absolute neutrophil count (28,000), platelet count (150,000), hemoglobin (14), and hematocrit (42).
   b) WBC count (15,000), polymorphs (60%), absolute neutrophil count (9,000), platelet count (350,000), hemoglobin (16), and hematocrit (48).
   c) WBC count (20,000), polymorphs (75%), absolute neutrophil count (15,000), platelet count (85,000), hemoglobin (12), and hematocrit (36).
   d) WBC count (7,500), polymorphs (50%), absolute neutrophil count (3,750), platelet count (100,000), hemoglobin (23), and hematocrit (69).
   e) WBC count (5,000), polymorphs (20%), absolute neutrophil count (1,000), platelet count (60,000), hemoglobin (17), and hematocrit (50).

734. All of the following statements are true about L : S ratio (lecithin : sphingomyelin) except::
- a) By 35 weeks gestational age, L : S ratio become 2 : 1 (normal).
- b) In diabetic patients ratio should be 3 : 1 and above for adequate lung maturity.
- c) Contamination of specimen with meconium reduces reliability of result of L : S ratio.
- d) Contamination of specimen with blood (mother or fetus) alters significance of L : S ratio of 2 : 1 or more.
- e) About 25% of fetuses have no hyaline membrane disease, even with a L : S ratio of less than 2 : 1.

735. A 16-year-old boy appears in ER with history of sniffing glue. **Most serious complication:**
- a) Cardiac arrythmia
- b) Lead toxicity
- c) Agitation
- d) Ataxia
- e) Hypothermia

736. A female child is ready to begin toilet training:
- a) At 17-month-age
- b) She cannot follow simple instruction
- c) She passes stool on time
- d) She does not cry with wet pampers
- e) Her pampers are wet in the morning

737. A nonstress test in a pregnant women usually detects:
- a) Infant’s heart rate reactivity to fetal movement.
- b) Infant’s weight
- c) Infant’s stress status in utero
- d) Infant’s congenital malformation
- e) Infant’s heart rate reactivity to oxytocin drip.

738. A newborn male infant appears with a small chest cavity and extremely short limbs. Physical examination reveals asymmetric short limbs. X-ray reveals multiple fractures, some of them are healed. **Most likely diagnosis:**
- a) Child abuse
- b) Osteogenesis imperfecta
- c) Hypochondroplasia
- d) Thanatophoric dysplasia
- e) Conradi’s syndrome

739. A 2-year-old girl appears in ER with history of fever (104.2°F) for the last 24 hours. She is up to date in immunization. Physical examination reveals normal tympanic membrane, clear air entry in both lungs, and mildly injected pharynx. Mother denies abdominal pain. CBC reveals WBC count 26,500/Cu mm^3, polymorphs 80%, bands 15%, lymphocytes 4%, monocytes 1%, and platelet 270,000. Urinalyis is normal. Chest X-ray is normal. **Most likely organism causing an infection:**
- a) S. aureus
- b) E. coli
- c) Pseudomonas aeruginosa
- d) Streptococcus pneumoniae
- e) Hemophilus influenzae type b

740. A 7-day-old boy appears in clinic for a routine check up. He is receiving breast milk every 3-hour-interval. His birth weight was 4.0 kg. His present weight is 3.8 kg. **The next step in management:**
- a) Continue breast feeding every 3 hours
- b) Continue breast feeding every 2 hours
- c) Give high calorie formula
- d) Continue breast feeding every 1 hour
- e) Discontinue breast feeding and start formula feeding every 2 hours

741. A 12-year-old girl appears in ER with right ankle injury sustained during the school basket ball game. Physical examination reveals swollen and tender right ankle. X-ray reveals a Salter II fracture. Past history reveals she had an injury in right ankle 12 months age. **Most likely interpretation of her injury:**
a) Old injury that was not healed
b) Osteochondrosis
c) Osteomyelitis
d) Pathologic fracture
e) New injury

742. A 5-year-old boy appears in the ER with a burn more than 15% BSA (burn surface area). He has no difficulty in breathing. Initial fluid therapy should include:
a) Intravenous D_{10} water 10 mL/kg/hour.
b) Oral hydration therapy without parenteral fluid.
c) Intravenous Ringer lactate solution 10 – 20 mL/kg/hour
d) Intravenous D_5 water 20 – 40 mL/kg/hour
e) Intravenous 0.45% sodium chloride 40 mL/kg/hour

743. A pregnant mother has neurofibromatosis. The risk of the newborn to have a neurofibromatosis:
a) 10%
b) 25%
c) 50%
d) 66%
e) 75%

744. Most of the physiologic action of thyroid is done by:
a) T 3
b) T 4
c) Free T 4
d) TSH
e) TRH

745. A 10-month-old male infant appears in a clinic with fever (101.8°F), conjunctival redness, sneezing, lacrimation, and intermittent cough for the last 14 days. For the last 24 hours, she is afebrile and URI symptoms improved. However, she has dry, intermittent, irritative hack followed by inexorable paroxysms. His immunization is up to date. CBC reveals WBC count 25,000, lymphocytes 80%, polymorphs 20%, and platelet count 425,000. Chest X-ray reveals a bilateral mild perihilar infiltrate. **Most likely diagnosis:**
a) Streptococcus pneumoniae
b) S. aureus
c) Chlamydia trachomatis
d) Pertussis
e) Viral pharyngitis

746. A 2-year-old boy appears with irritability, pruritus, and ataxia. He had Kasai procedure (hepatoportoenterostomy) at 3 months of age. Physical examination reveals hepatosplenomegaly and decreased deep tendon reflexes. Laboratory findings reveal a normal PT, calcium, phosphorus, bilirubin, and SGOT; mildly elevated SGPT; highly elevated alkaline phosphatase. **Most likely deficiency:**
a) Vitamin A
b) Vitamin D
c) Vitamin E
d) Vitamin K
e) Magnesium

747. A 16-year-old boy appears in ER with slurring speech, laughing inappropriately, and hallucinating. He also has nausea and restlessness. **Most likely diagnosis:**
a) Alcohol intoxication
b) Barbiturate

c) Phencyclidine (PCP)
d) Heroin
e) Cocaine

748. A child is diagnosed with trichinosis. **Most likely source of infection:**
a) Cow
b) Chicken
c) Pork
d) Lamb
e) Fish

749. Most common organism causing bacterial endocarditis after a dental procedure:
a) S. aureus
b) Streptococcus viridans
c) Group D enterococcus
d) Pseudomonas aeruginosa
e) Serratia marcescens

750. A child is diagnosed with tuberculous meningitis. The CSF examination reveals:
a) Increased polymorphs, increased protein, decreased glucose
b) Increased monocytes, increased protein, decreased glucose
c) Increased lymphocyte, increased protein, normal glucose
d) Increased lymphocyte, increased protein, decreased glucose
e) Increased lymphocyte then increased polymorphs, increased protein, normal glucose unless abscess rupture resulting in decreased glucose.

751. Most common organism in osteomyelitis after a puncture wound:
a) S. aureus
b) Pseudomonas aeruginosa
c) Serratia marcescens
d) Streptococcus pneumoniae
e) E. coli

752. Most common organism in osteomyelitis with or without sickle cell disease:
a) S. aureus
b) Pseudomonas aeruginosa
c) Serratia marcescens
d) Streptococcus pneumoniae
e) E. coli

753. Distribution of calories in human milk:
a) Protein (15%), fat (35%), carbohydrate (55%)
b) Protein (20%), fat (50%), carbohydrate (30%)
c) Protein (30%), fat (40%), carbohydrate (30%)
d) Protein (6%), fat (50%), carbohydrate (44%)
e) Protein (10%), fat (50%), carbohydrate (40%)

754. Distribution of calories in cow milk:
a) Protein (6%), fat (50%), carbohydrate (44%)
b) Protein (15%), fat (35%), carbohydrate (55%)
c) Protein (30%), fat (30%), carbohydrate (40%)
d) Protein (10%), fat (50%), carbohydrate (40%)
e) Protein (20%), fat (50%), carbohydrate (30%)

755. A child usually gains 30 g/day:
a) 0 – 3 months

- b) 3 – 6 months
- c) 6 – 9 months
- d) 9 – 12 months
- e) 12 – 15 months

756. Live virus vaccine:
- a) IPV
- b) MMR
- c) DTaP
- d) Hepatitis B
- e) Hemophilus influenza type b

757. Physical growth assessment in adolescent is most accurately measured by:
- a) Growth hormone level
- b) Parents height
- c) Testosterone level
- d) Thyroid hormone level
- e) Bone age

758. A 6-year-old boy appears in ER with a respiratory infection. He had seven times respiratory infections in the last 12 months. **The next step in management:**
- a) Chest X-ray immediately
- b) PFT (pulmonary function test)
- c) PPD test
- d) Throat culture
- e) No need to perform an extensive work up.

759. First permanent teeth appears:
- a) 5 – 6 years
- b) 6 – 7 years
- c) 7 – 8 years
- d) 8 – 9 years
- e) 9 – 10 years

760. A 3-year-old girl has a large progressively enlarging capillary hemangioma on the forehead. Mother is concerned. The next step in management:
- a) Observation
- b) Laser therapy
- c) Electrical cautarization
- d) Cryotherapy
- e) Corticosteroids (oral / intradermal)

761. A 6-month-old boy is crying hard during the onset of a routine physical examination. He refused milk. **The appropriate step in management:**
- a) Ignore his crying and continue examination
- b) Tell mother to leave the room and continue examination
- c) Hold the baby on your lap and continue examination
- d) Give milk again and finish examination quickly.
- e) Give baby back to mother until stops crying, then examine him.

762. A 5-year-old boy is admitted for an asthma attack. Intravenous D_5 water is started in the left hand. A blood electrolyte specimen is drawn from the left forearm. SMA6 results reveal Na 123, K 4, Cl 106, glucose 700, BUN 10, and creatinine 0.7. Urine specific gravity 1017. **The next step in management:**
- a) Correct hyponatremia in 24 hours
- b) Correct hyponatremia over 48 hours
- c) Do not give excess sodium and draw another specimen from his right hand.

d) Restrict intravenous fluid
e) Give maintenance sodium

763. A 1-day-old female newborn is delivered by NSVD. Apgar scores are 7 and 8 at 1 and 5 minutes respectively. Physical examination reveals bilateral subconjunctival hemorrhages. **The next step in management:**
a) Opthalmology consult
b) Corticosteroids eye drop
c) Erythromycin eye ointment
d) Gentamicin eye drop
e) Observation

764. A 1-month-old 26-week-gestational age male has a difficulty in feeding. A central line is placed for intravenous hydration. Three weeks later, he developed apnea, bradycardia, and desaturation. Sepsis work up was performed. **Most likely cause of infection:**
a) S. aureus
b) S. epidermidis
c) Pseudomonas aeruginosa
d) Group B Streptococcus
e) E. coli

765. A male newborn is diagnosed with hypospadius. Time to repair hypospadius:
a) 0 – 3 months
b) 3 – 6 months
c) 6 – 12 months
d) 12 – 18 months
e) 18 – 24 months

766. A female newborn is diagnosed with a cleft lip. Time to repair cleft lip:
a) 1 month
b) 2 months
c) 3 months
d) 4 months
e) 6 months

767. Most common chromosomal abnormality in a child with mixed gonadal dysgenesis:
a) 45, X / 46, XY
b) 47, XXY
c) 45, X
d) 46, XX
e) 46, XY

768. A full term (40-week-gestational age) female newborn is delivered by a cesarean section for fetal distress. Her birth weight is 1.8 kg. Her head circumferance and length are less than 5 th percentile. Maternal history of chronic hypertension, preeclampsia, and oligohydramnios. Physical examination reveals a normal small for gestational age (SGA) female. CBC reveals WBC count 15,600, polymorphs 55%, lymphocytes 45%, platelet count 210,000, hemoglobin 15, and hematocrit 45. Her mother is concerned. Catch-up growth for most SGA newborns occur between:
a) 0 – 12 months
b) 12 – 24 months
c) 24 – 36 months
d) 36 – 48 months
e) 48 – 60 months

769. Most common organism in pneumonia for school age and older children:
a) Streptococcal pneumoniae
b) Chlamydia trachomatis

c) S. aureus
d) E. coli
e) Mycoplasma

770. Most common organism in meningitis between 2 months and 12 years of age:
a) Group B Streptococcus
b) Streptococcal pneumoniae
c) E. coli
d) Listeria
e) S. aureus

771. A 4-year-old girl is admitted with history of vomiting and diarrhea for the last 2 days. Physical examination reveals temperature (98.6°F), pulse rate 110 per minute, respiratory rate 24 per minute, blood pressure 95/55, dry mucous membrane, and soft abdomen. Serum SMA 6 result reveals Na 120, K 5, Cl 108, glucose 80, BUN 8 and creatinine 0.6. Urine specific gravity is 1010. The next step in management:
a) Correct hyponatremia over 24 hours
b) Correct hyponatremia over 48 hours
c) Give maintenance sodium
d) Correct hyponatremia over 8 hours
e) Repeat SMA 6

772. A male child appears with fever (103°F) and difficulty in swallowing and drooling for the last 36 hours. Physical examination reveals extended neck position, noisy breathing, and enlarged cervical glands. **Most likely diagnosis:**
a) Epiglottitis
b) Tonsillitis
c) Pharyngitis
d) Peritonsillar abscess
e) Retropharyngeal abscess

773. A child appears with a hypertrophy of the right upper extremity and right lower extremity than that of left extremities. **Most likely diagnosis:**
a) Adrenocortical tumor
b) Neuroblastoma
c) Pheochromocytoma
d) Adrenal medullary tumor
e) Wilms tumor

774. Serum alpha fetoprotein level is decreased
a) Omphalocele
b) Cirrhosis in early childhood
c) Meningomyelocele
d) Multiple gestation
e) Congenital nephrosis

775. Serum alpha fetoprotein is increased:
a) Incorrect gestational age
b) Trisomy 18
c) Trisomy 21
d) IUGR
e) Polycystic renal disease

776. A 4-year-old child is referred for a developmental screening. The test is not appropriate at this age:
a) Weschler Intelligence Test for children
b) Bender Gestalt
c) Goodenough drawing test

d) Baley scales of infant development
e) Early screening inventory

777. During the month of January ten children (up to 2 years) were admitted in a pediatric ward with respiratory symptoms. Eight of them were born prematurely. **Most likely organism:**
a) Haemophilus influenzae type b
b) Rhinovirus
c) Streptococcus pneumoniae
d) S. aureus
e) Respiratory syncitial virus

778. Infants are predisposed to allergy:
a) Dust
b) Pollen
c) Milk
d) Cat
e) Dog

779. Sensorineural hearing loss is usually noted:
a) Perforated ear drug
b) Otitis media
c) Congenital CMV
d) Tympanostomy tube
e) Wax in external auditory canal

780. Conductive hearing loss can occur:
a) Congenital syphilis
b) Tympanosclerosis
c) Genetic
d) Congenital rubella
e) Gentamicin toxicity

781. The cancer which is radioresistant:
a) Ewing sarcoma
b) Rhabdomyosarcoma
c) Retinoblastoma
d) Chondrosarcoma
e) Hodgkin’s disease

782. All newborns usually have:
a) Insomnia
b) Narcolepsy
c) Sleep with a dream
d) REM (rapid eye movement) sleep
e) Non – REM sleep

783. A premature infant, when he / she becomes full term by age is:
a) Less active and alert than full term who is just born
b) More active and alert than full term who is just born.
c) Heavier than full term who is just born.
d) Lighter than full term who is just born.
e) Smarter than full term who is just born.

784. A 6-year-old boy appears in a clinic with history of hyperactivity and poor school performance. He cannot watch television more than a few minutes at a time. Physician also noted a reduced attention span and an impulsive behavior. **Most likely diagnosis:**

a) Normal child
b) Schizophrenia
c) Lead toxicity
d) Drug ingestion
e) ADHD (attention deficit hyperactivity disorder)

785. A child is diagnosed with a nonorganic failure to thrive. All of the following clinical manifestations may present **except:**
a) Poor hygiene
b) Sad facial expression
c) Hyperactivity
d) Withdrawing behavior
e) Indifference toward mother

786. A child appears in ER with loss of vision in both eyes in the last 12 hours. Physical examination reveals absence of tunnel vision, decreased visual acuity, 20 / 200 vision in both eyes, and blurring of both optic disc margins. **Most likely diagnosis:**
a) Conversion disorder
b) Brain tumor
c) Pseudotumor cerebri
d) Migraine
e) Optic neuritis

787. A fetal hemoglobin chain that rapidly decreases in first few months after birth:
a) Alpha chain
b) Beta chain
c) Gamma chain
d) Delta chain
e) Epsilon chain

788. An adult hemoglobin consist of:
a) Alpha 2, gamma 2
b) Beta 2, gamma 2
c) Alpha 2, Epsilon 2
d) Zeta 2, epsilon 2
e) Alpha 2, beta 2

789. A fetal hemoglobin chain that rapidly increases in first few months after birth:
a) Alpha chain
b) Beta chain
c) Gamma chain
d) Delta china
e) Epsilon chain

790. The life span of red blood cells decrease in newborns due to:
a) Increased alkaline phosphatase in RBCs.
b) Decreased alkaline phosphatase in RBCs.
c) Increased glucose 6 phosphatase in RBCs.
d) Increased phosphorylase in RBCs.
e) Decreased glutathione in RBCs.

791. The bonding between a mother and an infant should begin:
a) 0 – 4 hours
b) 5 – 24 hours
c) 25 – 48 hours
d) 3 – 7 days

e) 8 – 30 days

792. A child is diagnosed with warfarin toxicity. **The therapy should include:**
a) Vitamin E
b) Vitamin K
c) Factor IX
d) Heparin
e) Factor VIII

793. A fetal hemoglobin consists of:
a) Alpha 2, gamma 2
b) Beta 2, gamma 2
c) Alpha 2, epsilon 2
d) Zeta 2, epsilon 2
e) Alpha 2, beta 2

794. A child appears in a clinic with rashes. Physical examination reveals erythema multiforme exudativum. **Most likely diagnosis:**
a) Sarcoidosis
b) Rheumatic fever
c) Lyme disease
d) Steven-Johnson syndrome
e) Coccidioidomycosis

795. A 16-year-old girl has been using birth control pills for the last 3 months. She appeared with rashes. **Most likely characteristic of rash:**
a) Erythema marginatum
b) Erythema nodosum
c) Erythema multiforme
d) Erythema multiforme exudativum
e) Erythema chronicum migrans

796. A newborn is diagnosed with group B Streptococcus sepsis and PPHN (persistent pulmonary hypertension). Pulmonary vasoconstriction is due to:
a) Decreased thromboxane A 2
b) Increased thromboxane A 2
c) Increased PGE_1
d) Decreased PGE_1
e) Decreased tolazoline

797. A mother should be allowed to breast-feed if she is taking the following medications:
a) Anticoagulants
b) Methimazole
c) Antihypertensives
d) Iodides
e) Cimetidine

798. Drugs are safe to use by lactating mothers if drugs have the following characteristics **except:**
a) Plasma bound
b) Weaker acids
c) Small molecules
d) Poorly absorbed from maternal GI tract
e) Poorly absorbed from newborn GI tract

799. True statement about chorion and zygote:
a) Dichorionic is always dizygotic.
b) Dichorionic is dizygotic in 20% of cases, monozygotic in 80% of cases.

c) Monochorionic is dizygotic in 30% of cases.
d) Monochorionic is dizygotic in 5% of cases.
e) Monochorionic is always monozygotic.

800. The zygocity is confirmed by:
a) Pelvic ultrasonography
b) MRI
c) Laparoscopy
d) DNA analysis
e) Transvaginal ultrasonography

801. Hemihypertrophy can be found in all of the following **except:**
a) Neuroblastoma
b) Hepatoma
c) Wilms tumor
d) Adrenocortical tumor
e) Adrenocortical hyperplasia

802. Retinitis pigmentosa is noted in all of the following **except:**
a) Abetalipoproteinemia
b) Refsum disease
c) Hunter syndrome
d) Hurler syndrome
e) Down syndrome

803. Salt-and-pepper appearance in retina is noted in newborns:
a) Toxoplasmosis
b) CMV
c) Congenital syphilis
d) Herpes
e) Retinoblastoma

804. Influenza vaccine is indicated in all of the following **except:**
a) Cystic fibrosis
b) Chronic sinusitis
c) Sickle cell anemia
d) Congenital heart disease
e) Bronchopulmonary dysplasia

805. A male child appears in ER with history of fever (103.9°F), difficulty in swallowing, and drooling for the last 14 hours. Physical examination reveals muffled voice, aphonia, and forward leaning posture. He refuses to lie down during examination. Most likely diagnosis:
a) Peritonsillar abscess
b) Acute tonsillopharyngitis
c) Acute sinusitis
d) Epiglottitis
e) Retropharyngeal abscess

806. A 10-year-old boy appears with a short stature. His height is less than 5 th percentile. His weight is between 10 th and 25 th percentile. His parents are worried. His parents are short. His father is 5 ft 2 inches tall. His mother is 5 ft tall. His bone age is same as chronological age. **The next appropriate statement:**
a) He remains short for rest of life.
b) He will be taller than his mother.
c) He will be taller than his father.
d) His final height will be between 25 th and 50 th percentiles.
e) His final height will be between 10 th and 25 th percentiles.

807. A 9-year-old girl appears with a short stature. Her height is less than 5 th percentile. Her weight is between 25 th and 50 th percentile. Her mother is concerned. Her father is 5 feet 9 inches tall. Her mother is 5 feet 6 inches tall. Her bone age is less than chronological age. The next appropriate statement:
a) She remains short for rest of life.
b) She remains short until puberty then increases height to a normal adult height (above 5 th percentile).
c) She will be taller than her father.
d) She will be taller than her mother.
e) Her final height will be above 95 th percentile.

808. A 6-year-old boy appears with lethargy and poor school performance for the last 1 year. His mother noticed that his height remains same for the last 1 year. His height drops from 25 th percentile to a 5 th percentile. His weight remains 25 th percentile. His bowel movement is once every 7 days for the last one year. His bowl movement was regular before that. **Most likely diagnosis:**
a) Hyperthyroidism
b) Brain tumor
c) Hypoadrenalism
d) Hypothyroidism
e) Hypoparathyroidism

809. Which of the following part of body achieve 90% of adult size by five years of age?
a) Brain
b) Thymus
c) Ovary
d) Lymphatic
e) Skeletal muscle

810. Which of the following part of body school-aged children has more than in adult?
a) Brain
b) Thymus
c) Testes
d) Lymphatic
e) Cardiac muscle

811. Which of the following part of body has rapid growth in first 5 years, average growth from 5 to 10 years, and again rapid growth from 10 – 18 years?
a) Brain
b) Thymus
c) Uterus
d) Lymphatic
e) Liver

812. Which of the following part of body has slow growth in first 12 years, then rapid growth from 12 – 18 years?
a) Brain
b) Thymus
c) Genitalia
d) Lymphatic
e) Bone

813. Which of the following part of body has rapid growth in first 5 years and involutes rapidly in adolescence?
a) Brain
b) Thymus
c) Hemoglobin
d) Lymphatic
e) Blood volume

814. All of the following components of the body have slow growth in first 12 years, then rapid growth from 12 – 18 years **except:**
a) Iron
b) Folate
c) Blood volume
d) Hematocrit
e) Alkaline phosphatase

815. Which of the following component of the body has a maximum quantity at 9 months, then decreases in quantity for up to 6 years, then spurts at preadolescence?
a) Skeletal muscle
b) Cardiac muscle
c) Skull
d) Spleen
e) Subcutaneous fat

816. True statement in a full term newborn:
a) Ossification is present in distal femur and proximal tibia.
b) Ossification is present in clavicle.
c) Ossification is present in membranous skull.
d) Fusion occurs between humeral shaft and capitellum.
e) Calcification is present in central incisor deciduous teeth.

817. A full term male newborn appears with IUGR (intra uterine growth retardation). His height, weight, and head circumferance are all less than 5 th percentiles. He will remain less than 5 th percentile rest of his life. **Most likely cause:**
a) Maternal preeclampsia
b) Maternal hypertension
c) Maternal type II diabetes that was not controlled.
d) Maternal renal transplantation
e) Maternal rubella infection in first trimester

818. A full term female newborn appears AGA (appropriate for gestational age). Her growth and development remains appropriate for the first 3 years of life (25 th percentile). After that her growth becomes stunted (less than 5 th percentile). Her immunization is up to date. Other siblings are healthy. **Most likely cause:**
a) Nutritional neglect
b) Child abuse
c) Growth hormone deficiency
d) Parents are separated but her father visits regularly.
e) Hyperthyroidism

819. A 30-week-gestational age preterm male newborn is placed on a mechanical ventilator for RDS (respiratory distress syndrome). ABG reveals pH 7.20, PCO_2 65, PO_2 76, bicarbonate 35, base excess +0.5, and oxygen saturation 95%. **Most likely interpretation of the ABG:**
a) Respiratory alkalosis
b) Metabolic alkalosis
c) Respiratory acidosis
d) Metabolic acidosis
e) Combined respiratory and metabolic acidosis

820. A 7-day-old 32-week-gestaional age preterm female infant is on a mechanical ventilator with IMV 10, inspiratory time 0.5 second, PIP 15, PEEP 4, Fio_2 21%, flow rate 6 L/minute. ABG reveals pH 7.54, PCO_2 20, PO_2 85, bicarbonate 10, base excess +1.5, and oxygen saturation 98%. **Most likely interpretation of the ABG:**
a) Respiratory acidosis
b) Metabolic acidosis
c) Respiratory alkalosis

d) Metabolic alkalosis
e) Compensated respiratory alkalosis

821. A 25-week-gestational age preterm male newborn is diagnosed with NEC (necrotizing enterocolitis). He is on a mechanical ventilator with IMV 30, PIP 18, PEEP 5, Fio_2 40%, flow rate 7 L/minute, and inspiratory time 0.45 second. ABG reveals pH 7.21, PCO_2 34, PO_2 70, bicarbonate 12, base deficit –15.6, and oxygen saturation 93%. **Most likely interpretation of the ABG:**
a) Respiratory acidosis
b) Metabolic acidosis
c) Respiratory alkalosis
d) Metabolic alkalosis
e) Compensated respiratory acidosis

822. A full term female newborn is diagnosed with meconium aspiration. He is on a mechanical ventilator with IMV 60, PIP 25, PEEP 4, Fio_2 100%, flow rate 10 L/minute, and inspiratory time 0.4 second. ABG reveals pH 7.01, PCO_2 62, PO_2 68, bicarbonate 14, base deficit –12.7, and oxygen saturation 85%. **Most likely interpretation of the ABG:**
a) Respiratory acidosis
b) Metabolic acidosis
c) Respiratory alkalosis
d) Respiratory acidosis
e) Combined respiratory and metabolic acidosis

823. Hemoglobin electrophoresis test result of a child reveals hemoglobin A 96%, hemoglobin A2 3.5%, hemoglobin F 0.5%, and hemoglobin S 0%. Hemoglobin is normal and MCV is normal. **Most likely diagnosis:**
a) Sickle cell trait
b) Sickle cell disease
c) Thalassemia minor
d) Hemoglobin SC disease
e) Normal

824. A 4-year-old black female appears pale. CBC reveals retic 12%, WBC 10,000, polymorphs 60%, lymphocyte 40%, hemoglobin 7, hematocrit 21, MCV 78, and Howell – Jolly bodies. Hemoglobin electrophoresis test result reveals hemoglobin A 0%, hemoglobin A2 2%, hemoglobin F 4%, and hemoglobin S 94%. **Most likely diagnosis:**
a) Sickle cell trait
b) Thalassemia major
c) Sickle cell disease
d) Sickle beta thalassemia
e) Sickle alpha thalassemia

825. A 6-year-old black male appears for a routine check up. His CBC reveals a normal hemoglobin, hematocrit, and MCV. Hemoglobin electrophoresis reveals hemoglobin A 50%, hemoglobin A2 2%, hemoglobin F 0%, and hemoglobin S 48%. **Most likely diagnosis:**
a) Sickle cell trait
b) Sickle cell disease
c) Thalassemia minor
d) Thalassemia major
e) Sickle alpha thalassemia

826. A 2-year-old boy appears with diminished growth and hepatosplenomegaly. Blood smear reveals target cells and poikilocytes. CBC reveals hemoglobin 4.5, hematocrit 14.0, MCV 45, WBC 6,000, polymorphs 55%, lymphocytes 45%, and platelet 205,000. Hemoglobin electrophoresis reveals hemoglobin A 20%, hemoglobin A2 4%, hemoglobin F 76%, hemoglobin S 0%, and an elevated ratio of A2 and A. **Most likely diagnosis:**
a) Thalassemia minor
b) Thalassemia major
c) Sickle cell disease

d) Sickle alpha thalassemia
e) Hemoglobin SC disease

827. A 12-month-old girl appears pale and less active. CBC reveals hemoglobin 9, hematocrit 27, MCV 63, WBC count 8,500, polymorphs 45%, lymphocytes 55%, and platelet 216,000. Hemoglobin electrophoresis reveals hemoglobin A 97%, hemoglobin A2 2.7%, hemoglobin F 0.3%, hemoglobin S 0%. **Most likely diagnosis:**
a) Sickle cell trait
b) Thalassemia minor (beta)
c) Normal
d) Thalassemia trait (alpha)
e) Iron deficiency anemia

828. A 3-year-old boy appears with massive splenomegaly and paleness. CBC reveals hemoglobin 9, hematocrit 27, WBC count 11,000, many target cells, polymorphs 51%, lymphocytes 45%, monocytes 4%, and platelet count 369,000. Hemoglobin electrophoresis reveals hemoglobin A 0%, hemoglobin A2 0%, hemoglobin F 2%, hemoglobin S 49%, and hemoglobin C 49%. **Most likely diagnosis:**
a) Sickle cell trait
b) Sickle cell disease
c) Sickle beta thalassemia
d) Hemoglobin SC disease
e) Sickle alpha thalassemia

829. A 4-year-old girl appears in a clinic for a routine check up. A routine CBC reveals hemoglobin 14, hematocrit 42, MCV 63, WBC count 9,800, polymorphs 60%, lymphocytes 35%, monocytes 2%, eosinophils 3%, and platelet 362,000. Hemoglobin electrophoresis reveals hemoglobin A 97%, hemoglobin A2 2.8%, hemoglobin F 0.2%, and hemoglobin S 0%. **Most likely diagnosis:**
a) Thalassemia (alpha) trait
b) Thalassemia minor (beta)
c) Iron deficiency anemia
d) Sickle cell trait
e) Hemoglobin SC disease

830. A 5-year-old boy appears with splenomegaly and paleness. CBC reveals hemoglobin 8, hematrocrit 24, MCV 70, WBC count 7,600, polymorphs 55%, lymphocyte 45%, platelet 219000. Hemoglobin electrophoresis reveals hemoglobin A 20%, hemoglobin A2 8%, hemoglobin F 10%, and hemoglobin S 62%. **Most likely diagnosis:**
a) Sickle cell disease
b) Sickle cell trait
c) Sickle alpha thalassemia
d) Sickle beta thalassemia
e) Thalassemia major

831. All of the following are recommended for an athlete regarding dietary requirements **except:**
a) Special diet
b) Adequate calories
c) Essential nutrients
d) Balanced diet
e) Water should be given before and during exercise.

832. A 2-year-old girl appears in a clinic with history of poor feeding. Mother is concerned. She is active, alert, and very energetic. Physical examination is unremarkable. The next step in management:
a) Force child to eat
b) Only give high calorie food
c) Don’t give any juice or soda
d) Reassurance
e) Don’t let her watch TV without eating nutritious food.

833. The true statement about the growth of a vegetarian infant as compared to a omnivorous infant in first 2 years of life:
 a) Vegetarian infant has a low cholesterol level than that of omnivorous infant.
 b) Vegetarian infant has a low risk of milk protein allergy than that of omnivorous infant.
 c) Vegetarian infant has low calcium level than that of omnivorous infant.
 d) Vegetarian infant has low iron level than that of omnivorous infant.
 e) Vegetarian infant may not grow as fast as the omnivorous infant.

834. A child is diagnosed with asplenia. The vaccine should not be given:
 a) Rotavirus
 b) DTaP
 c) MMR
 d) Hepatitis B vaccine
 e) Hemophilus influenzae type b

835. The true statement about the vaccination in a lactating woman:
 a) Lactation has a risk to the baby because live viruses are present inside the breast milk.
 b) IPV vaccine is given if she is traveling to an endemic area.
 c) MMR vaccine is contraindicated.
 d) Varicella vaccine is contraindicated.
 e) Influenza vaccine is not indicated.

836. A 14-year-old beautiful girl appears with primary amenorrhea. Her mother is concerned. Physical examination reveals enlarged breasts, absence of pubic hair, and bilateral inguinal masses. **Most likely diagnosis:**
 a) Reifenstein syndrome
 b) Denys-Drash syndrome
 c) 5-alpha-reductase deficiency
 d) Testicular feminization syndrome
 e) Swyer syndrome

837. Most common cause of female pseudohermaphroditism:
 a) Placental aromatase deficiency
 b) Maternal masculinizing tumor of ovary
 c) Mother use testosterone during pregnancy
 d) Maternal masculinizing tumor of adrenal
 e) Congenital adrenal hyperplasia (CAH)

838. The organism responsible for enteritis necroticans:
 a) Clostridium perfringens type C
 b) E. coli
 c) Listeria
 d) S. aureus
 e) Group B Streptococcus

839. A preterm newborn is diagnosed with necrotizing enterocolitis (NEC). The definitive diagnostic test for NEC:
 a) Abdominal CT scan
 b) Abdominal X-ray
 c) Abdominal ultrasonography
 d) Guiac test gastric content positive for blood
 e) Guiac test stool positive for blood

840. A 4-year-old male asymptomatic child appears for a routine check up. He had an ear infection 3 years ago. Physical examination reveals bilateral middle-ear effusions. **Most likely diagnosis:**
 a) Acute otitis media
 b) Chronic otitis media
 c) Otitis externa

d) Middle ear cholesteatoma
e) Eustachian tube dysfunction or obstruction

841. The true statements about testicular torsion are all of the following **except:**
a) Extravaginal torsion is more common in children than intravaginal torsion.
b) Newborns appear with a large, firm, and ecchymotic testis.
c) Cremastaric reflex is absent in children with a torsion.
d) A prompt surgical exploration within 6 hours can save up to 90% of gonads after scrotal orchiopexy.
e) In a neonate, remove necrotic testis and fix other.

842. Most common feature of septo-optic dysplasia of de Morsier:
a) Agenesis of corpus callosum
b) Agenesis of septum pellucidum
c) Optic nerve hypoplasia
d) Hypoglycemia
e) Seizure

843. Most common cause of an absent testis:
a) Nerve injury
b) Vascular accident
c) Decreased FSH
d) Decreased testosterone level
e) Decreased dehydrotestosterone level

844. Jarisch-Herxheimer reaction can occur during penicillin therapy in which condition:
a) Sickle cell disease
b) Acute tonsillopharyngitis
c) UTI prophylaxis
d) Relapsing fever
e) Endocarditis

845. A 17-year-old girl appears with a copious malodorous yellow vaginal discharge, vulvovaginal irritation, and dysuria for the last 7 days. She is sexually active. Physical examination reveals a frothy discharge with vaginal erythema and cervical hemorrhage. Vaginal discharge pH is 5.6. **Most likely diagnosis:**
a) Monilial vaginitis
b) Gonorreal vaginitis
c) Chlamydial vaginitis
d) Herpes vaginitis
e) Trichomonas vaginitis

846. A 6-year-old boy is admitted to a PICU with head trauma from a car accident. About 6 hours later he developed a generalized convulsion that lasted for 2 minutes. The drug of choice for a seizure in this patient:
a) Phenobarbital
b) Phenytoin
c) Carbamazepine
d) Lorazepam
e) Paraldehyde

847. All of the following are complications of systemic steroid use **except:**
a) Hyperglycemia
b) Hypertension
c) Diabetes insipidus
d) Diabetes mellitus
e) Posterior subcapsular cataract

848. A 3-week-old healthy female infant appears with crusted pustular lesions over vulva and periumbilical areas. **Most likely organism:**
a) S. aureus
b) S. epidermidis
c) Herpes
d) Group B Streptococcus
e) Candida albicans

849. A 6-year-old girl appears with a vaginal bleeding and smelly vaginal discharge. **Most likely diagnosis:**
a) Sexual abuse
b) Gonococcal infection
c) Chlamydia infection
d) Foreign body
e) Maternal estrogen withdrawal bleeding

850. A 10-year-old girl appears with a progressive weakness in both lower extremities, pain in the lower back and abdomen, and urinary incontinence for the last 24 hours. She had a viral infection recently. Physical examination reveals a loss of pain, light touch, and temperature sensations; loss of reflexes; but the joint position and vibration sense are intact. Later on she developed spasticity and hyperreflexia in lower extremities. CBC reveals WBC count 9,500, polymorphs 45%, lymphocytes 55%, hemoglobin 12, hematocrit 36, and platelet 225,000. CSF reveals an elevated lymphocytes (35 cells), absence of polymorphonuclear leukocytes, mildly elevated protein (55 mg/dL), and normal glucose (60 mg/dL). **Most likely diagnosis:**
a) Botulism
b) Brain tumor
c) Poliomyelitis
d) Transverse myelitis
e) Guillain-Barre syndrome

851. A 14-year-old boy appears with a history of a progressive ascending weakness started from both lower extremities to the trunk, both upper extremities, and bulbar muscles for the last 4 days. He had an URI symptoms for the last 2 weeks. He refuses to walk. He has mild respiratory distress. He also has dysphagia. He is intubated and placed on a mechanical ventilator. Physical examination reveals absence of tendon reflexes, hypotonia, and facial muscle weakness. CSF study reveals proten 120 mg/dL, 3 WBCs per mm^3, all lymphocytes, and glucose 70 mg/dL. **Most likely diagnosis:**
a) Guillain-Barre syndrome
b) Transverse myelitis
c) Botulism
d) Poliomyelitis
e) Brain tumor

852. Most common cause of sensorineural hearing impairment in childhood:
a) Recurrent otitis media
b) Genetic
c) Trauma to middle ear
d) Gentamicin toxicity
e) Eustachian tube dysfunction

853. The best diagnostic study in peroneal muscle atrophy (Charcot-Marie-Tooth disease, HMSN type II):
a) EMG
b) Muscle biopsy
c) Sural nerve biopsy
d) CPK
e) CSF protein

854. The preferred therapy for acetaminophen toxicity:
a) Hemoperfusion

b) Amyl nitrite
c) Peritoneal dialysis
d) Acetylcysteine (mucomist)
e) Methylene blue

855. The preferred therapy for tricyclic antidepressant (TCA) toxicity:
a) Naloxone
b) Diphenhydramine
c) Methylene blue
d) Sodium bicarbonate
e) Physostigmine

856. The preferred therapy for methemoglobinemia:
a) Methylene blue
b) Naloxone
c) Amyl nitrite
d) Hemoperfusion
e) Deferoxamine

857. A 15-year-old girl appears with history of secondary amenorrhea. She denies sexual activities. Physical examination is unremarkable. **The next step in management:**
a) Vaginal smear for estrogen
b) Serum FSH level
c) Serum LH level
d) Pregnancy test
e) Serum prolactin level

858. A 16-year-old girl appears with history of delayed primary amenorrhea. She denies sexual activities. Physical examination is unremarkable. Pregnancy test is negative. **The next step in management:**
a) Perform vaginal smear for estrogen and /or therapy with medroxyprogesterone
b) Repeat pregnancy test
c) Perform karyotype
d) Serum FSH level
e) Serum TSH level

859. Most girls have menarche in which sex maturity rating (SMR) or Tanner Staging:
a) SMR 1
b) SMR 2
c) SMR 3
d) SMR 4
e) SMR 5

860. Most common site of injury resulting in a neurovascular compromise:
a) Wrist injury
b) Ankle injury
c) Knee injury
d) Hip injury
e) Elbow injury

861. Mode of inheritance in cleft lip and palate:
a) Autosomal recessive
b) Autosomal dominant
c) X-linked recessive
d) X-linked dominant
e) Multifactorial

862. The cause of hemifacial microsomia:
   a) Cellular death defect
   b) Collagen defect
   c) Circulation defect
   d) Muscular defect
   e) Nerve defect

863. Chromosomal abnormalities in Turner syndrome include all of the following **except:**
   a) 45, X
   b) 45, X / 46, XX
   c) 45, X / 46, XY
   d) 45, X / 46, X, r(X)
   e) 45, X / 46, X, i(Xq)

864. Most common cause of childhood nasal polyposis:
   a) Allergic rhinitis
   b) Allergic sinusitis
   c) Vasomotor rhinitis
   d) Cystic fibrosis
   e) Deviated nasal septum

865. A 5-year-old boy is developmentally delayed since birth and is wearing a hearing aid. The boy was diagnosed SGA (small for gestational age) at birth and had thrombocytopenia. Physical examination reveals mental retardation, delayed speech, and microcephaly. **Most likely diagnosis:**
   a) Fetal alcohol syndrome
   b) Congenital herpes
   c) Congenital syphilis
   d) Fetal phenytoin syndrome
   e) Congenital CMV infection

866. A 13-year-old girl appears with a flu-like symptoms (e.g., headache, nausea, malaise), dizziness, and visual disturbance for the last few hours. She had a syncopal episode on the way to hospital. **The investigation can lead to a diagnosis:**
   a) Nasopharyngeal culture
   b) Urine for drug screening
   c) Serum acetaminophen level
   d) Opthalmologic examination
   e) Blood carboxyhemoglobin level

867. A 16-year-old boy appears in a ER with a visual disturbance (e.g., feeling of being in a snowstorm) for the last 3 hours. He vomited 3 times prior to arrival in ER. Physical examination reveals bilateral dilated pupils that are unresponsive to light, retinal edema, and optic disc hyperemia. The investigation can lead to a diagnosis:
   a) Blood methanol level
   b) Blood cyanide level
   c) Blood salicylate level
   d) Blood acetaminophen level
   e) Examination of urine under Wood’s lamp

868. Most common cause of acute hydronephrosis:
   a) Ureterovesicle junction obstruction
   b) Ureteropelvic junction obstruction
   c) Ureterocele
   d) Vesicoureteral reflux
   e) Polycystic kidney disease

869. A newborn is diagnosed at birth with a midpenile or proximal hypospadius. The investigation is indicated for this patient:
a) Urinalysis
b) Urine culture
c) Blood SMA 6
d) Karyotype
e) Renal scan

870. A 12-year-old boy appears with blue sclera, multiple fractures, and hyperextensible joints. The screening test is indicated for this patient:
a) Bone scan
b) Bone marrow scan
c) Hearing test
d) Opthalmologic examination
e) Hemoglobin electrophoresis

871. A 3-year-old girl appears with kyphosis and low back pain for the last 3 months. She did not gain any weight for the past 3 months. Mother denies history of trauma. The pain is persistent. Physical examination reveals kyphosis and tenderness in the thoracic region. **The initial procedure of choice:**
a) Reassurance
b) MRI of spine and soft tissue
c) Bone scan of spine
d) Ultrasonography of spine
e) Plain x-ray of spine

872. A pregnant mother has lupus. Most likely effect on fetus:
a) Elevated WBC count
b) Cardiac tumor
c) Elevated platelet count
d) Tricuspid insufficiency
e) Congenital heart block

873. A full term male newborn is diagnosed with polycythemia. His central hematocrit is 70. The clinical manifestations may include all of the following **except:**
a) Tachypnea
b) Tachycardia
c) Jaundice
d) Hypoglycemia
e) Poor feeding

874. A female child waves bye-bye, says ‘mama’ and ‘dada’, but cannot speak one word with meaning. She crawls, creeps, stands up by holding furniture but cannot walk holding onto furniture. She elevates foot on standing. She picks up pellet with an assisted pincer movement, drops object deliberately, but does not release an object to examiner. She cannot take a few sips from cup. **The developmental age of this child in months:**
a) 8
b) 9
c) 10
d) 11
e) 12

875. A 8-year-old boy appears with a history of fall onto an outstretched hand. Physical examination reveals a painful, red, swollen right wrist. X-ray of the right hand reveals fracture of the radius and ulna, just proximal to the wrist, distal segment displaced in dorsal and radial direction. **The nerve injury is associated with this condition:**
a) Radial nerve
b) Median nerve

c) Ulnar nerve
d) Brachial plexus
e) Superfical cutaneous branch supplying over the wrist

876. A 5-year-old girl appears in ER with a big left eyebrow laceration. The management should not include which of the following:
a) Shave eyebrows
b) Use 5 – 0 suture
c) Irrigate and clean the wound
d) Use 4 – 0 suture
e) Repair along the hair line

877. A 15-year-old girl appears with a history of occasional chest pain and palpitations for the last 6 months. She is a very bright student. Physical examination reveals a late systolic murmur at apex with click. The murmur is prolonged in late systole when the patient is standing or sitting condition. She also has a thoracic scoliosis: **Most likely diagnosis:**
a) Mitral valve prolapse (MVP)
b) Tricuspid valve regurgitation
c) Mitral valve stenosis
d) Tricuspid atresia
e) Mild aortic stenosis

878. All of the following statements are true about monitoring of anticonvulsant drug level **except:**
a) A good clinical judgement is more reliable in achieving seizure control than over-reliance on anticonvulsant drug monitoring.
b) Routine serum monitoring of anticonvulsant levels are recommended.
c) Serum monitoring of anticonvulsant therapy should be performed at the beginning of anticonvulsant therapy.
d) Serum monitoring of anticonvulsant therapy should be performed for noncompliant patients and their families.
e) Serum monitoring of anticonvulsant therapy should be performed for patients with accelerated growth spurts.

879. A 12-year-old boy appears in ER with history of several episodes of vomiting and watery diarrhea for the last 1 hour. He went to his friend's house and ate lunch 2 hours age. **Most likely organism:**
a) Streptococcus pyogenes
b) E. coli
c) Staph. aureus
d) Salmonella
e) Shigella

880. All of the following statements are true in the diagnosis of group A beta-hemolytic Streptococci **except**:
a) Rapid antigen detection should be supported by culture.
b) Anti-DNase B is best serologic test for streptococcal pyoderma
c) Anti-DNase B level begins to rise immediately after infection
d) Positive throat culture in a patient with acute tonsillitis or pharyngitis is diagnostic.
e) Vigorous swabbing is important to obtain an adequate specimen.

881. A full term male newborn appears with severe watery diarrhea for the last 12 hours. Maternal history reveals polyhydramnios. He has no vomiting. SMA 6 reveals Na 130, K 3.0, Cl 80, BUN 20, and creatinine 1.0. ABG reveals pH 7.59, PCO_2 39, PO_2 85, 97% oxygen saturation, base excess +12.0. Stool test reveals high chloride and absence of blood. **Most likely diagnosis**:
a) Rotavirus
b) Milk protein allergy
c) Necrotizing enterocolitis
d) Methadone withdrawal

e) Chloride-losing diarrhea

882. Gynecomastia is a side-effect of which medication:
a) Clonidine
b) Diazoxide
c) Prazocin
d) Spironolactone
e) Captopril

883. Renal failure is a side-effect of which medication:
a) Captopril
b) Nifedipine
c) Phentolamine
d) Clonidine
e) Methyldopa

884. Treatment of choice for moderate-to-severe hypertension in neonate:
a) Diazoxide
b) Propranolol
c) Hydralazine
d) Furosemide
e) Methldopa

885. A 6-month-old female child is recovering from a rotavirus causing diarrhea. Her stools are formed. She started to take lactose-containing milk. After 24 hours, she developed severe watery stools. She was taking lactose-containing milk since birth without any problem. Clinitest reveals positive reducing substance. Stools pH are acidic on nitrazine paper. Most likely cause of second diarrheal episode:
a) Relapse of rotavirus diarrhea
b) Lactose intolerance
c) Sucrose intolerance
d) Galactose intolerance
e) Glucose–galactose intolerance

886. The hormone causing penile growth in fetus during the 2nd and 3rd trimesters:
a) Testosterone
b) Dehydrotestosterone
c) Estrogen
d) FSH
e) LH

887. A 10-month-old male infant with cystic fibrosis develops rectal prolapse. The immediate management includes all of the following **except:**
a) Surgical correction
b) Adequate dietary therapy
c) Control lung infection
d) Buttocks can be taped closed to prevent immediate recurrence
e) Knee-chest position and then, reduced manually by continuous gentle pressure.

888. Most common clinical manifestation of cystic fibrosis:
a) Failure to thrive
b) Abnormal stools
c) Meconium ileus
d) Nasal polyps
e) Respiratory symptoms

889. The best initial diagnostic study for a child with respiratory distress:

a) Arterial blood gas
b) Chest X-ray
c) Chest CT scan
d) Chest MRI
e) Oxygen saturation by pulse oximetry

890. Most frequent cause of neonatal seizure in full term infants:
a) Hypoglycemia
b) Hypocalcemia
c) Perinatal asphyxia
d) Hypomagnesemia
e) Methadone withdrawal

891. A 15-year-old female athlete participates intense exercise in hot summer day. The fluid is recommended to avoid dehydration:
a) Cold plain water every 15 minutes
b) Gatorade drink every 1 hour
c) Cold beer
d) Glucose water
e) Salt plus glucose water

892. A 16-year-old boy is HIV positive. He wants to participate in school sports. The true statement about HIV infection and sports:
a) HIV infected patients are not allowed to participate in contact sports.
b) HIV infected patients with skin lesions are not at risk in transmitting the disease.
c) HIV infected patients should participate in sports provided skin lesions are covered, and blood and body fluid precautions are taken.
d) HIV-infected patient should be discouraged to participate in sports in which open blood loss is a possibility.
e) HIV-infected patients should avoid all sports for the benefit of other sport participants.

893. Food anaphylaxis is mostly due to:
a) IgA
b) IgG
c) IgE
d) IgD
e) IgM

894. A 18-month-old male child appears in a clinic for a routine check up. His height, weight, and head circumferance are all way above 95 th percentiles. His mother is concerned. He is developmentally normal. His mother stated that he likes to eat all kinds of foods, drinks juice and milk. His bowel habit is normal. **The appropriate recommendation for this child:**
a) Reduce fat intake
b) Stop juice intake
c) Discontinue milk and juice for a few months and recheck his weight
d) Reduce cholesterol intake
e) No restriction of fat or cholesterol

895. A recently pregnant mother appears for a routine check up. She is concerned. She delivered an anencephalic newborn in her last pregnancy. The risk of this child to become anencephalic:
a) 1%
b) 4%
c) 10%
d) 25%
e) 50%

896. A 4-year-old girl appears in ER in early morning with vomiting. She did not eat properly last night due to URI symptoms. Physical examination is unremarkable. Her present weight is just below the 5th percentile. Laboratory findings reveal hypoglycemia, ketonemia, low plasma insulin, and low plasma alanine. Urinalysis reveals ketonuria. **Most likely diagnosis:**
a) Fasting causing hypoglycemia
b) Pancreatic islet cell tumor
c) Nonketotic hypoglycemia
d) Pancreatic cell hyperplasia
e) Ketotic hypoglycemia

897. A 2-week-old male appears in a clinic for a routine check up. Physical examination reveals white flaky plaques inside mouth, 1 cm palpable liver, and tip of the spleen is palpable. Maternal history is unremarkable except thrombocytopenia due to a preeclampsia during pregnancy. **The next step in the management:**
a) Reassurance
b) Oral nystatin
c) HIV testing of the newborn
d) HIV testing of the mother
e) CBC and platelet count of the newborn

898. A 4-year-old female child appears in ER with history of stridor and mild respiratory distress for the last 12 hours. Mother denies fever. Physical examination reveals tachypnea and barking cough. **Most likely organism:**
a) Hemophilus influenzae
b) Respiratory syncitial virus
c) Rhinovirus
d) Group A beta hemolytic Streptococcus
e) Parainfluenza virus

899. A 5-year-old boy is diagnosed with Kawasaki disease. He develops right upper abdominal pain. Physical examination reveals a tenderness below the right costal margin. **Most likely diagnosis:**
a) Peptic ulcer
b) Choledochal cyst
c) Hydrops of the gallbladder
d) Stone in the common bile duct
e) Unusual presentation of acute appendicitis

900. A 6-year-old girl appears in a clinic with history of not growing appropriately. Her mother noticed that she did not grow for the last 12 months. Physical examination is unremarkable except the present height is 10th percentile. One year ago her height was 50th percentile. **All of the following tests are indicated except:**
a) Urinalysis
b) Thyroid function test
c) CBC
d) Head CT scan
e) X-ray of hands / wrists

901. A 10-year-old boy appears in clinic with massive cervical lymphadenopathy for the last 6 months. He recently arrived in USA from an Asian country. Mother appears healthy. Father died 2 years ago secondary to an unknown infection. Physical examination reveals bilateral enlargement of cervical lymph nodes, absence of rales and rhonchi in both lungs. Chest X-ray is normal. **The immediate next step in the management:**
a) Ultrasonography of the mass
b) CT scan of the mass
c) MRI of the mass
d) Excisional biopsy of lymph nodes
e) PPD skin test

902. Most common cause of drug-resistant tuberculosis:
a) INH is not an effective drug.

b) Rifampin is not an effective drug.
c) Pyrazinamide is not an effective drug.
d) Inadequate treatment
e) Spontaneous point mutations in the mycobacterial genome

903. All of the following statements are true about tuberculin skin test (TST) or PPD **except:**
a) Prior vaccination with BCG is a contraindication to TST.
b) A 5 mm induration is considered positive in a child with HIV infection.
c) A 10 mm induration is considered positive in a child with diabetes mellitus.
d) A 15 mm induration is considered positive in a 5-year-old child
e) Erythema does not indicate a positive test.

904. The serum uric acid level is elevated in which of the following medication:
a) Ethambutol
b) INH
c) Streptomycin
d) Rifampin
e) Pyrazinamide

905. All of the following are bactericidal antituberculous drugs **except:**
a) INH
b) Ethionamide
c) Rifampin
d) Streptomycin
e) Pyrazinamide

906. A pregnant mother with PKU (phenylketonuria) is supposed to take low phenyl alanine diet. She is noncompliant. The least likely effects on fetus:
a) Hydrocephalus
b) Microcephaly
c) Increased risk of abortion
d) Mental retardation
e) Congenital cardiac defect

907. A full term male appears with small and deformed ears, large mouth, coloboma of the upper eyelid, hemifacial microsomia, and antimongoloid slant of palpebral fissures. **Most likely diagnosis:**
a) Turner syndrome
b) Goldenhar syndrome
c) Pierre-Robin syndrome
d) Hurler syndrome
e) Treacher-Collins syndrome

908. A female child appears with white forelock. **Most likely diagnosis:**
a) Down syndrome
b) Klinefelter syndrome
c) Sturge-Weber syndrome
d) Cri-du-chat syndrome
e) Waardenburg syndrome

909. A child is diagnosed with acrodermatitis enteropathica. Most likely deficiency of:
a) Copper
b) Zinc
c) Selenium
d) Protein
e) Fat

910. The human milk and cow's milk differ in composition in all of the following **except:**
a) Protein
b) Whey and casein ratio
c) Carbohydrate
d) Calcium
e) Fat quantity

911. A child appears with fever (102°F), skin erythema, and flaccid bullae filled with clear fluid. Physical examination reveals skin tenderness and separation of epidermis with minimal skin touching. **The drug of choice:**
a) Acyclovir
b) Penicillin
c) Nafcillin
d) Erythromycin
e) Amphotericin

912. The true statement about Menkes Kinky hair syndrome:
a) Low total body copper stores
b) Decreased copper absorption from intestine
c) Copper transport from intestine to plasma is normal.
d) Autosomal dominant
e) Normal growth and development

913. A male child appears with gross hematuria. He had URI symptoms 3 days ago. He is asymptomatic. **Most likely diagnosis:**
a) Nephrotic syndrome
b) Polycystic kidney
c) IgA nephropathy
d) Hydronephrosis
e) Multicystic kidney

914. Myeloid-erythroid ratio in a patient with chronic inflammation:
a) 1 : 1
b) 7 : 1
c) 2 : 1
d) 3 : 1
e) 4 : 1

915. A 2-day-old full term female newborn appears with poor feeding and dyspnea. Physical examination reveals blood pressure 35/20, respiratory rate 70 per minute, temperature 98.6°F, weak peripheral pulses, grayish blue color of skin, hepatomegaly, and right ventricular heave. **Most likely diagnosis:**
a) Aortic stenosis
b) Coarctation of aorta
c) Hypoplastic right heart
d) Hypoplastic left heart syndrome
e) Bicuspid aortic valve

916. A 18-year-old male with Down syndrome lives independently. He went to a doctor for facial cosmetic surgery. The appropriate statement regarding management:
a) He should bring his parents to give a consent for surgery.
b) A Down syndrome patient does not need a cosmetic facial surgery.
c) Surgeon should refuse to do surgery because the Down syndrome patient is mentally retarded.
d) The congenital cyanotic heart disease should be ruled out prior to surgery.
e) Surgeon should set up a date for cosmetic surgery.

917. A 16-year-old boy wants to use a condom. He comes to the clinic for free samples. He requested the physician, however, not to tell his parents. **The next appropriate management:**
a) Physician should not give condoms until he becomes 18.
b) Physician should give condoms but notify his parents.
c) Physician should give condoms and should not notify his parents.
d) Physician should discourage sexual activities.
e) Physician should set up a conference with his parents and school teacher for his sexual activities.

918. The clinical manifestation that indicates sepsis in newborns:
a) Hypoglycemia
b) Hyperglycemia
c) Hypocalcemia
d) Hyponatremia
e) Anemia

919. A 3-week-old full term female infant appears in ER with bloody diarrhea for the last 6 hours. She has been receiving breast milk since birth. She is active and alert. She is crying for breast milk. Physical examination reveals normal abdomen with good intestinal peristoltic sounds. **The next step in management:**
a) Sepsis work up
b) Abdominal X-ray
c) Stool culture
d) Intravenous hydration and keep NPO
e) Vitamin K

920. The girlic odor is noted in a child. Physical examination reveals loss of hair and fingernails. **Most likely diagnosis:**
a) Zinc deficiency
b) Molybdenum deficiency
c) Selenium toxicity
d) Copper toxicity
e) Copper deficiency

921. A 12-month-old female child appears with alternate normal and watery stools for the last 14 days. She has brown, watery stools more in the afternoon and evening. She likes to drink fruit juice. Physical examination reveals weight (50th percentile), height (25th percentile), and normal soft abdomen. **Most likely diagnosis:**
a) Viral gastroenteritis
b) Gastrocolic reflex
c) Toddler diarrhea
d) Rotavirus infection
e) Food poisoning

922. First sign of puberty in males:
a) Axillary hair
b) Public hair
c) Ejaculation
d) Penile growth
e) Testes increase in size

923. First sign of puberty in females:
a) Breast buds
b) Axillary hair
c) Public hair
d) Menstruation
e) Enlarged clitoris

924. Most common type of child abuse and neglect:

a) Neglect
b) Physical abuse
c) Sexual abuse
d) Emotional abuse
e) Unknown

925. A 12-year-old girl appears in a clinic for a routine check up. Her mother is concerned because she has no breast buds. Physical examination is unremarkable. **The next step in management:**
a) Head CT scan
b) Endrocrine referral
c) Chromosome study
d) Serum FSH and LH levels
e) Reassurance

926. A 17-year-old boy appears in ER with cyanosis, respiratory depression, and convulsion. Physical examination reveals bilateral constricted pupils and rales over the lungs. Chest X-ray reveals pulmonary edema. Most likely diagnosis:
a) Cocaine use
b) Marijuana use
c) Alcohol overdose
d) Heroin overdose
e) PCP use

927. The organism may cause delayed presentation of right diaphragmatic hernia:
a) E. coli
b) Listeria
c) Pseudomonas
d) Mycoplasma
e) Group B Streptococcus (GBS)

928. Most common cause of secondary peritonitis in children:
a) Perforated stomach with ulcer
b) Necrotizing enterocolitis
c) Ruptured bile duct
d) Duodenal ulcer with perforation
e) Ruptured appendix

929. Iron absorption from gastrointestinal tract is increased by:
a) Vitamin A
b) Vitamin B_{12}
c) Vitamin C
d) Vitamin D
e) Vitamin E

930. Which of the following is poorly absorbed from the intestine:
a) Vitamin A
b) Vitamin D
c) Iron
d) MCT
e) Vitamin E

931. A full term female newborn is admitted in NICU with meconium aspiration. A few hours later, she developed PPHN (persistent pulmonary hypertension). **The best diagnostic study for PPHN:**
a) Chest X-ray
b) Hyperoxia test
c) Echocardiogram

d) Pulmonary function test
e) Arterial blood gas

932. A 4-year-old boy appears in ER with fever (104.5°F), conjunctivitis, and oral lesions. He has been suffering from a fever for the last 6 days. He refuses to eat solid foods. Physical examination reveals bilateral nonpurulent conjunctivitis, fissured lip, strawberry tongue, cervical adenopathy, erythema and desquamation of hands and feet, polymorphic but nonvesicular rash on the trunk. **The preferred therapy:**
a) Acetaminophen
b) Ibuprofen
c) Nafcillin
d) Acyclovir
e) Intravenous immune globulin (IVIG)

933. A group of adolescents appear in ER with a severe respiratory distress. They were going to school by train. Many adults appeared in the adult ER at the same time. A few of them developed convulsions. Physical examination revealed bradycardia, arrythmia, and hypotonia. **Most likely cause:**
a) Mustard gas
b) Ammonia
c) Phosgene
d) T – 2 toxin
e) Nerve agents

934. A 16-year-old boy appears in a clinic with hyperactivity, short attention span, disturbances in sleep, and bad temperament for the last 2 weeks. He was hit by a car 3 weeks ago. He went to ER and was released after evaluation. He used to be a good student prior to this episode. **Most likely diagnosis:**
a) Marijuana use
b) PCP use
c) Brain tumor
d) Post-traumatic syndrome
e) Problem with his girlfriend

935. A full term female newborn is delivered by forcep with Apgar scores 8 and 9 at 1 and 5 minutes respectively. Physical examination reveals a swelling over the left parietal area. X-ray skull reveals a fracture. Head CT scan reveals a 2 mm depression of the left parietal area. She is clinically asymptomatic. **The next step in the management:**
a) Surgery immediately
b) Observation
c) Phenobarbital prophylaxis
d) Phenytoin prophylaxis
e) Intubation and hyperventilation

936. A 3-day-old male newborn appears with bilateral purulent discharge from eyes for the last 18 hours. He was born by NSVD. Mother is nonclinic. **The treatment of choice:**
a) Penicillin
b) Erythromycin
c) Ceftriaxone
d) Cefotaxime
e) Amoxicillin

937. A child appears with short stature and multiple bruises. Physical examination reveals hypoplastic thumbs, café-au-lait spots, and hyperpigmented skin. **Most likely diagnosis:**
a) Fanconi syndrome
b) Rubinstein-Taybi syndrome
c) Congenital CMV infection
d) Fetal dilantin syndrome
e) Neurofibromatosis

938. A full term male newborn is delivered by an emergency cesarean section. Prenatal fetal monitoring reveals sinusoidal pattern. His Apgar scores are 2 and 3 at 1 and 5 minutes respectively. He is intubated and is placed on a mechanical ventilator. **Most likely diagnosis:**
a) Meconium aspiration
b) Group B Streptococcus infection
c) Severe fetal anemia
d) Severe RDS
e) Diaphragmatic hernia

939. A mother has an active genital (vagina) herpetic lesions. Her child was born by cesarean section and remains asymptomatic. She wants to breast feed the child. The mother should take the following precaution before breast feeding:
a) Wear face mask
b) Start acyclovir to the child
c) Clean breasts with soap water
d) No precaution is needed
e) Wash hands properly

940. A mother has an active herpetic lesions in mouth. The precaution mother should take before breast feeding:
a) Wear face mask
b) Give acyclovir to the mother
c) Give acyclovir to the baby
d) Clean breasts with soap water
e) Wash hands properly

941. A mother has an active herpetic lesions in breasts. She wants to breast feed the child. **The appropriate statement:**
a) Wear face mask
b) Cannot breast feed the baby
c) Wash hands properly
d) Clean breasts with alcohol swab
e) Clean breasts with soap and water

942. A newborn appears with a unilateral (left) persistent nasal discharge. Physical examination reveals a noisy breathing with the left nasal secretions. **Most likely diagnosis:**
a) URI
b) Foreign body
c) Sinusitis
d) Nasolacrimal duct obstruction
e) Left choanal stenosis

943. A full term female newborn appears with cyanosis at birth. Cyanosis improves upon crying. **Most likely diagnosis:**
a) Transposition of great arteries
b) Bilateral choanal atresia
c) Tetralogy of Fallot
d) Pulmonary agenesis
e) Hypoplastic left heart syndrome

944. A 4-year-old appears with left sided head tilt for the last 10 days. Physical examination reveals decreased lateral movement of the right eye. **Most likely diagnosis:**
a) Myasthenia gravis
b) Retinoblastoma
c) Posterior fossa tumor
d) Neuroblastoma

e) Fracture of the right orbit

945. A 7-day-old newborn has no goiter and thyroid function test reveals low T 4 and high TSH. **Most likely diagnosis:**
a) Hypoparathyroidism
b) Hyperthyroidism
c) Endemic goiter
d) Hypopituitarism
e) Thyroid agenesis of the newborn

946. A newborn appears with goiter and thyroid function test reveals low T 4 and high TSH. **Most likely diagnosis:**
a) Hypoparathyroidism
b) Hypopituitarism
c) Hyperthyroidism
d) Thyroid agenesis of the newborn
e) Endemic congenital hypothyroidism

947. A 3-year-old child is diagnosed with extrapyramidal (athetoid or dyskinetic) cerebral palsy. Physical examination reveals all of the following **except:**
a) Delayed speech
b) Mental retardation
c) Delayed fine motor
d) Delayed gross motor
e) Delayed language

948. Functional characteristic of IgE:
a) Protects from viral infection
b) Protects from fungal infection
c) Mediates allergic disease
d) Protects from bacterial infection
e) Protects from milk-protein allergy

949. A 23-week-old female fetus appears with cystic fibroma. **Most likely diagnosis:**
a) Down syndrome
b) Trisomy 18
c) Trisomy 13
d) Turner syndrome
e) Cri-du-chat syndrome

950. A male newborn appears with left eye leukocoria and left eye calcification. He has a family history of leukocoria. **Most likely diagnosis:**
a) Neuroblastoma
b) Chorioretinitis
c) Retinitis pigmentosa
d) Retinopathy of prematurity
e) Retinoblastoma

951. A 12-year-old female appears in a clinic with fever (104.8°F), severe throat pain, unable to open her mouth, refuses to eat and talk for the last 24 hours. She had acute tonsillopharyngitis a few days ago. Physical examination reveals “hot potato” voice, trismus, torticollis, enlarged left tonsil, and uvula is displaced to the right side. **Most likely diagnosis:**
a) Peritonsillar abscess
b) Retropharyngeal abscess
c) Epiglottitis
d) Acute tonsillopharyngitis
e) Pharyngeal muscle paralysis

952. A male child appears with sudden onset of high fever (104°F), dysphagia and throat pain. He had acute pharyngitis a few days ago. Physical examination reveals hyperextended head, gurgling respiration, drooling with progressive difficulty in breathing, absence of stridor, and bulging of the posterior pharyngeal wall. **Most likely diagnosis:**
a) Peritonsillar abscess
b) Retropharyngeal abscess
c) Acute tonsillopharyngitis
d) Epiglottitis
e) Tuberculosis of cervical spine

953. Most common organism of cellulitis of ear and external auditory canal:
a) Group B Streptococcus
b) Group A Streptococcus
c) Pseudomonas
d) Staph. aureus
e) Staph. epidermidis

954. A 2-month-old female infant is brought to ER with history of excessive crying for the last 3 hours. Before that, infant was fine. Physical examination reveals flushed face, distended abdomen, and cold feet. **Most likely diagnosis:**
a) Appendicitis
b) Obstructed inguinal hernia
c) Obstructed femoral hernia
d) Intestinal obstruction
e) Colic

955. A 14-year-old boy appears with a swelling in the left thigh. He was injured during a soccer game 7 days ago. Physical examination reveals a swollen, red, and tender left thigh. CBC reveals a drop of hematocrit from 42 to 28. **Most likely diagnosis:**
a) Hemophilia
b) Deep thigh hematoma
c) Rhabdomyosarcoma
d) Osteosarcoma
e) Osteomyelitis

956. A 5-year-old girl appears in ER with fever (102.5°F) and pain behind the right ear for the last 24 hours. She had history of otitis media. Physical examination reveals a swelling behind the right ear, and outward and downward displacement of the right pinna. Left ear is normal. **Most likely diagnosis:**
a) Chronic otitis media
b) Epidural abscess
c) Mastoiditis
d) Lymphadenitis
e) Sternomastoid muscle hematoma

957. The **least** likely complication of tonsillectomy:
a) Referred ear pain
b) Postoperative throat infection
c) Halitosis
d) Massive hemorrhage
e) Anesthetic complications

958. A full term female infant with IUGR (intra uterine growth retardation) is born by NSVD with a severe respiratory distress and low Apgar scores (3 and 4 at 1 and 5 minutes respectively). She was intubated and placed on a mechanical ventilator. Arterial blood gas reveals a metabolic acidosis. **Most likely cause of IUGR.**
a) Group B Streptococcus

b) Fetomaternal bleeding
c) Cord prolapse
d) Meconium aspiration
e) Uteroplacental insufficiency

959. A mother is concerned about her 12-month-old healthy male child's hearing. **The next step in evaluation of hearing:**
a) Rule out TORCH infection
b) Tympanometry
c) Audiometry
d) Renal ultrasonography
e) Auditory evoke response test

960. A full term male newborn appears with a vesicular rash behind the left ear. He was born by NSVD. He is asymptomatic. Mother denies herpetic lesions. **Most likely diagnosis:**
a) Chicken pox
b) Herpes zoster
c) Benign pustular melanosis
d) Erythema toxicum neonatorum
e) Herpes simplex

961. Three newborn infants develop Staph. aureus infections in NICU within a 10-day-period. **The best way to prevent the infection:**
a) Strict hand-washing
b) Discontinue TPN
c) Discontinue intralipid
d) Discontinue all central lines
e) Give prophylactic antibiotics to all infants in NICU

962. A 11-month-old male infant recently arrived in USA from an Asian country. His immunization status is unknown. Mother is positive for hepatitis B surface antigen. **The infant should receive:**
a) Hepatitis B vaccine (3 doses within 6 months)
b) Hepatitis B vaccine (2 doses within 4 months)
c) HBIG (1 dose) and hepatitis B vaccine (2 doses within 6 months)
d) HBIG (1 dose) and hepatitis B vaccine (3 doses within 6 months)
e) Hepatitis B vaccine (1 dose)

963. A 10-year-old female appears with pain and swelling in the left leg. X-ray study reveals soft tissue swelling and absence of fracture. She has a history of trauma. **The best diagnostic study to rule out a fracture:**
a) Rpt x-ray after 3 days
b) CT scan
c) MRI
d) Ultrasonography
e) Radionuclide bone scan

964. A full term male newborn is delivered by NSVD. His mother has eczema. His three siblings have a eczema. His mother is concerned. The milk should be recommended to avoid eczema:
a) Soy milk
b) Goat milk
c) Cow milk
d) High calorie milk
e) Breast milk

965. A 15-year-old girl appears with macerated and inflamed areas between toes. She is an athlete. **Most likely diagnosis:**
a) Scabies

b) Tinea pedis
c) Tinea corporis
d) Eczema
e) Allergic reaction

966. A mother of a 10-month-girl noticed that her daughter’s diaper area is always wet. She did not experience that in her 2-year-old girl. Physical examination reveals a wet vaginal area and dribbling of urine from vagina. Most likely diagnosis:
a) Ectopic ureter in uterus
b) Urogenital sinus defect
c) Vesicoureteral reflux
d) Pelvic kidney
e) Vaginal discharge due to maternal estrogen

967. Which of the following statement suggests an immunodeficient child?
a) Seven URI symptoms in the past 1 year.
b) Four episodes of otitis media in the past 1 year.
c) Oral thrush at 2½ months of age
d) Five episodes of bronchitis in winter months.
e) Three episodes of pneumonias in the past 12 months.

968. A 12-month-old girl appears with a loss of weight and repeated regurgitation of food for the last 3 months. She has no nausea, diarrhea and fever. Mother appears depressed due to a separation from her husband 4 months ago. She is unemployed. The girl does not cry prior to regurgitation episodes. She lost 24 oz over the last 3 months. Physical examination reveals a normal development, weight less than 5 th percentile, height is 25 th percentile, and head circumferance is 50 th percentile. She was fine prior to this episode.
Most likely diagnosis:
a) Rumination
b) Gastroesophageal reflux
c) Diaphragmatic hernia
d) Upper intestinal obstruction
e) Peptic ulcer

969. The side-effects of dexamethasone include all of the following **except:**
a) Cardiomyopathy
b) Hypertension
c) Adrenal hyperplasia
d) Hyperglycemia
e) Gastrointestinal bleeding

970. The side effect of cromolyn sodium:
a) Excessive salivation
b) Nasal congestion
c) Tachycardia
d) Hypertension
e) Transient bronchoconstriction

971. Bartter syndrome includes all of the following **except:**
a) Hyperkalemia
b) Hypochloremia
c) Alkalosis
d) Hyperreninemia
e) Growth retardation

972. True statements about pheochromocytoma **except:**
a) Autosomal dominant

b) Paroxysmal hypertension is commonly noted
c) Most common site of origin is adrenal medulla.
d) Epinephrine and norepinephrine are secreted by the tumor.
e) VMA (vanillylmandelic acid) is elevated in urine.

973. First clinical manifestation of a feminizing adrenal tumor:
a) Acne
b) Deep voice
c) Enlarged clitoris
d) Gynecomastia
e) Advanced osseous maturation

974. Physical examination of the newborn reveals a midline mass under the tongue. The mass is 1.5 cm in diameter, nonbluish, and noncystic. **The next step in the management:**
a) Surgical removal of the mass
b) Thyroid scan
c) MRI
d) Ultrasonography
e) CT scan

975. A 11-month-old boy came back from O.R. after surgical repair of a cleft palate. The boy is stable. His serum electrolytes are normal. **The oral feeding may resume:**
a) Within 6 hours after surgery
b) After 24 hours of surgery
c) After 48 hours of surgery
d) After 7 days of surgery
e) After 14 days of surgery

976. A 6-year-old boy is diagnosed to have a temper tantrum. Parents should tell the child:
a) His behavior is not tolerable.
b) He should be punished if he continues to behave improperly.
c) He should learn from his peers how to behave.
d) He should be ashamed of himself.
e) His reasons for frustration are understable, but out-of-control behavior is unacceptable.

977. A 3-year-old girl appears with a sudden onset of cough, dyspnea, and hoarseness for the last 3 hours. Mother noticed a small amount of fresh blood with mucus inside her mouth. She was playing and eating prior to this episode. Physical examination reveals a croupy cough and mild cyanosis. **The appropriate management:**
a) Throat culture
b) Nasopharyngeal culture
c) Remove a foreign body from esophagus
d) Remove a foreign body from larynx
e) Remove a foreign body from nasopharynx

978. A 2-year-old boy appears with a sudden onset of cough, dyspnea, and hoarseness for the last 6 hours. Mother denies fever. He was playing prior to this episode. Physical examination reveals bilateral wheezing, audible slap, and palpable thud. The appropriate step in management:
a) Throat culture
b) Nasopharyngeal culture
c) Remove a foreign body from esophagus.
d) Remove a foreign body from trachea.
e) Remove a foreign body from stomach

979. Excretory product of cocaine in urine:
a) Methyl ecgonine
b) Ethyl ecgonine

c) Benzoyl ecgonine
d) Aryl cocainamide
e) Benzoyl cocaine

980. The underlying defect in a patient with myasthenia gravis:
a) Presynaptic neuromuscular blockade
b) Neuronal atrophy
c) Muscular atrophy
d) Muscular hypertrophy
e) Postsynaptic neuromuscular blockade

981. Preferred investigative procedure for a lung mass:
a) MRI
b) Fluroscopy
c) CT scan
d) Chest x-ray
e) Pulmonary function test

982. A full term male newborn is born by NSVD with a Apgar scores 9 and 9 at 1 and 5 minutes respectively. Physical examination reveals respiratory rate 46 per minute, pulse rate 110 per minute, cyanosis of the hands and feet, pink mucous membrane and tongue, and grade 1/6 systolic murmur in the right sternal border. **The next step in the management:**
a) Echocardiogram
b) Chest x-ray
c) Arterial blood gas
d) Sepsis work up
e) Keep the infant under radiant wormer

983. A 2-year-old female appears in a clinic with history of poor weight gain for the last 4 months. She is active, alert, and energetic. Physical examination reveals head circumferance 25 th percentile, height 10 th percentile, and weight less than 5 th percentile. **Most likely cause of not gaining adequate weight:**
a) Hypothyroidism
b) UTI
c) Gastroesophageal reflux
d) Inadequate caloric intake
e) Congenital adrenal hyperplasia

984. An 8-month-old girl appears with sudden onset of abnormal flexion movements of extremities, trunk, and neck, followed by gradual relaxation. EEG reveals a hypsarrthymic pattern. **The next step in the management:**
a) Phenobarbital
b) Phenytoin
c) Lorazepam
d) Carbamazepine
e) ACTH (adrenocorticotropic hormone)

985. A 6-year-old male child appears with history of fever (103°F) and sore throat, then develops vomiting and diarrhea with dark brown stools. Stools have no occult blood. Physical examination reveals pale, puffy eyelids, and diffuse abdominal tenderness. Laboratory findings reveal BUN 80, sodium 128, hematocrit 36, WBC count 16,500, polymorphs 70%, lymphocytes 25%, monocytes 5%, and platelet count 246,000. **Most likely diagnosis:**
a) Hemolytic uremic syndrome
b) Acute appendicitis
c) Acute tonsillitis
d) Acute pharyngitis
e) Acute poststreptococcal glomerulonephritis

986. A 22-month-old girl had surgery for craniopharyngioma. Subsequently she developed hypotension and dehydration. Laboratory findings reveal serum glucose 36 mg/dL, serum sodium 120 mEq/L, serum chloride 80 mEq/L, and serum potassium 7.0 mEq/L. **Most likely diagnosis:**
a) Increased ADH secretion
b) Diabetes insipidus
c) Acute enteritis
d) Idiopathic hypoglycemia
e) Adrenal insufficiency

987. A male child repeats vowel sounds, sits briefly, begins separation anxiety, and prefers mother. He cannot transfer object from hand to hand. He cannot chase pellet. **Most like age of this child in month:**
a) 4
b) 5
c) 6
d) 7
e) 9

988. A 12-year-old female with a severe asthma is admitted for an acute appendicitis. She usually receives albuterol and prednisone. The appropriate management before surgery:
a) Intravenous theophylline
b) Intravenous hydration
c) Cromolyn sodium
d) Albuterol pump
e) Intravenous corticosteroids

989. A 12-year-old boy with asthma wants to participate in sports. The medication recommended before sports to avoid exercise-induced asthma:
a) Beta-agonist bronchodilator
b) Theophylline
c) Cromolyn sodium
d) Antihistamine
e) Corticosteroids

990. An 8-year-old boy appears for a routine check-up. Physical examination reveals height (75 th percetile), weight (above 95 th percentile), and Tanner stage I. **Most likely diagnosis:**
a) Hyperthyroidism
b) Hyperpituitarism
c) Adrenal hyperplasia
d) Gigantism
e) Obesity due to excessive caloric intake

991. Male internal genital organs are formed due to:
a) Presence of Mullerian-inhibiting substance (MIS)
b) Absence of Mullerian-inhibiting substance
c) Dehydrotestosterone
d) Estrogen
e) Progesterone

992. A 5-year-old girl appears in a clinic for routine check up. Physical examination reveals blood pressure 130/95, respiratory rate 22 per minute, pulse rate 100 per minute, and rest of examination is unremarkable. Mother denies UTI. However, she visited a few times in ER for fever and each time the diagnosis was a viral syndrome. Urinalysis reveals 1+ protein, no WBCs, and no RBCs. CBC reveals a normal finding. Serum SMA6 reveals K 6.5 mEq/L, bicarbonate 15 mEq/L, creatinine 1.5 mg/dL, sodium 142 mEq/L, and chloride 99 mEq/L. **Most likely diagnosis:**
a) Reflux nephropathy
b) Acute glomerulonephritis
c) Nephrotic syndrome

d) Essential hypertension
e) Normal

993. A 3-year-old male appears pale. CBC reveals hemoglobin 6 g/dL, hematocrit 18, MCV 60 fL, WBC 9,200, polymorphs 45%, lymphocytes 55%, platelet 450,000, and retic count 4%. He arrived in USA recently. Physical examination is unremarkable except he looks very pale. His stools are normal and absence of occult blood. Urinalysis is normal. In addition to appropriate nutrition, he needs:
a) Folic acid
b) Vitamin E
c) Intramuscular iron therapy
d) Oral iron supplementation
e) Packed RBCs transfusion

994. A 6-year-old female asthamatic is intubated for a severe asthma attack. She was kept NPO and intravenous fluid therapy. She developed two episodes of generalized tonic-clonic seizures that were controlled with two anticonvulsants. Physical examination revealed heart rate 60 per minute, respiratory rate 22 per minute, blood pressure 134/87. **The next appropriate step in management:**
a) Hyperventilation
b) Epinephrine drip
c) Propranolol
d) Atropine
e) Add another anticonvulsant

995. An infant is diagnosed with Alagille syndrome (intrahepatic biliary atresia). Physical examination reveals signs of rickets (e.g.,
bow legs and prominent wrists). Laboratory findings reveal a normal CBC, serum alkaline phosphatase (1400 U/L), serum Ca 6.9 mg/dL, phosphorous 2.8 mg/dL, mildly elevated SGOT and SGPT, and total bilirubin 4.0 mg/dL. **The next in the management:**
a) Phosphate supplementation
b) Calcium supplementation
c) Ursodeoxycholic acid
d) Total parenteral nutrition
e) Vitamin D

996. A 6-month-old boy appears in a clinic for poor weight gain. He is treated with furosemide and digoxin for a cardiac failure. **The appropriate therapy:**
a) Increase cereal quantity
b) Calcium supplementation
c) Give oxygen during feeding
d) MCT (medium chain triglyceride)
e) Admit in hospital and start TPN (total parenteral nutrition) for 7 to 10 days.

997. A 16-year-old boy appears in a clinic for a routine check up. Physical examination reveals an average blood pressure 145/90, respiratory rate 20 per minute, pulse rate 74 per minute, and rest of the findings are unremarkable. His father and uncle have a high blood pressure. His grandfather died of a stroke at the age of 62. His weight and height are above 95 th percentile. Laboratory test results reveal a normal CBC, SMA 6, and urinalysis. He is aware that he should control his weight and eating habits. After 1 month, repeat blood pressure is 140/90 (checked twice). **Most likely diagnosis:**
a) Renal artery stenosis
b) Aortic coarctation
c) Essential hypertension
d) Hyperparathyroidism
e) Normal blood pressure

998. A 10-month-old girl may be at risk to develop an atopy if she is exposed to:
a) Another child with atopy

b) URIs
c) Smoking
d) Non-allergenic formula
e) Breast feeding

999. Most common cause of profound deafness leading to cochlear implantation in children:
a) CMV
b) Rubella
c) Viral meningitis
d) Bacterial meningitis
e) Herpes

1000. Most common cause of congenital sensorineural hearing loss:
a) Herpes
b) Rubella
c) CMV
d) Toxoplasmosis
e) Syphilis

1001. Least likely complication of bronchoscopy:
a) Hypoxia
b) Bronchospasm
c) Arrythmia
d) Pneumopericardium
e) Laryngospasm

1002. A full term male infant is diagnosed with macrocephaly. Increased transillumination findings are noted in the frontal and parietal areas of the head. Family history of siblings death at birth due to a large head. **Most likely diagnosis:**
a) Aqueductal stenosis
b) Dandy-Walker syndrome
c) Meningomyelocele
d) Arnold-Chiari malformation
e) Intraventricular hemorrhage

1003. A full term newborn is diagnosed with hydrocephalus. Head CT scan reveals displacement of inferior vermis, medula and pons into cervical canal, narrowing and elongation of 4 th ventricle, and kinking of the brain stem. **Most likely diagnosis:**
a) Dandy-Walker syndrome
b) Arnold-Chiari malformation
c) Aqueductal stenosis
d) Posterior fossa tumor
e) Craniopharyngioma

1004. A 10-year-old male child who is a known diabetic on insulin appears with sweating, pallor, tremor, tachycardia, drowsiness, confusion, and seizure. **Most likely diagnosis:**
a) Diabetic ketoacidosis
b) Diabetes insipidus
c) Hyperglycemia
d) Insulin-induced hypersensitivity reaction
e) Insulin-induced hypoglycemia

1005. Management of a patient with insulin-induced hypoglycemia includes all of the following **except:**
a) Parents should give insulin injections to children younger than 12 years old.
b) Intravenous administration of 50 mL of 25% glucose
c) Glucose gel (15 g) via buccal mucosa

d) Intramuscular glucagon is given in an unconscious patient.
e) If the insulin dose is correct, reduce the dose.

1006. A 1-day-old female newborn appears with bilious vomiting. Physical examination reveals abdominal tenderness but absence of abdominal distension. Plain abdominal x-ray reveals a nonspecific finding. Vomiting continues despite antibiotic therapy. **Most likely diagnosis:**
a) Stress ulcer
b) Acute appendicitis
c) Malrotation
d) Hirschsprung disease
e) Hypoplastic left colon

1007. The best diagnostic method of Hirschsprung disease:
a) Barium enema
b) Upper GI series
c) Plain abdominal x-ray
d) Abdominal CT scan
e) Rectal suction biopsy

1008. The preferred therapy for a patient with true precocious puberty:
a) Testosterone
b) Dehydrotestosterone
c) Estrogen
d) Progesterone
e) Analog of GnRH (Gonadotropin releasing hormone)

1009. True statement about anorexia nervosa:
a) All socioeconomic classes are involved.
b) Patients maintain their body weight.
c) Amenorrhea may be present.
d) They do not “feel fat” when emaciated

1010. Fetal in utero treatment to induce lung maturity:
a) Growth hormone
b) Dexamethasone
c) Insulin
d) Testosterone
e) Surfactant

1011. A 4-year-old boy appears with recurrent respiratory infections, ataxia, and nystagmus. **Most likely diagnosis:**
a) HIV infection
b) Combined immuned deficiency
c) Wiskott-Aldrich syndrome
d) Friedreich ataxia
e) Ataxia telangiectasia

1012. Anaphylactic reaction to penicillin is due to all of the following **except:**
a) Penicilloate
b) Penilloate
c) Penicllenate
d) Oxidation product of penilloate
e) Benzylpenicilloyl haptenic group

1013. A 2-week-old boy with pyloric stenosis appears jaundice. The indirect hyperbilirubinemia is most likely due to:
a) Decreased enterohepatic circulation
b) Decreased level of glucoronyl transferase enzyme activity

c) Hemolysis
d) Obstruction
e) Hepatitis

1014. Cholestasis is associated with:
a) Pyloric stenosis
b) Hypothyroidism
c) Steatorrhea
d) Hypopituitarism
e) G6PD deficiency

1015. Most common organism responsible for suppurative parotitis:
a) S. aureus
b) Group A betahemolytic Streptococci
c) S. epidermidis
d) Pseudomonas
e) Nontypable Hemophilus influenzae

1016. A child appears with abrupt, symmetric skin eruptions on extensor surface of upper extremities. Skin lesions are doughnut-shaped, target-like papules with an erythematous outer border, an inner pale ring, and a dusky purple to necrotic center. **The characteristic of lesions suggest:**
a) Erythema nodosum
b) Erythema multiforme
c) Erythema migrans
d) Erythema infectiosum
e) Erythema toxicum neonatorum

ANSWERS

No.	**Correct Answer**	
1.	(c)	Na x 2 + Gl/18 + BuN/2.8 136 x 2 + 90/18 + 21/2.8 272 + 5 + 7.5 = 284
2.	(e)	DKA means presence of ketone and glucose in the urine. Serum osomolality is elevated.
3.	(b)	GBS does **not** infect human beta cells.
4.	(a)	Sequence of abnormalities are mentioned from (a) to (e). First sign is reduced iron stores in tissue. Last sign is reduced intracellular enzyme activity.
5.	(c)	Newborn is diagnosed with transposition of great vessels, therefore Rashkind baloon atrial septostomy is the initial procedure of choice.
6.	(d)	Congenital rubella is associated with diabetes in later life.
7.	(b)	Streptococcus pneumoniae is the most common organism.
8.	(d)	Pulmonary circulation is the correct answer.
9.	(b)	X-linked dominant; both males and females are affected, but males are affected more severely. Father and all his daughters are affected, but none of his sons.
10.	(d)	NEC can develop if procedure is performed through umbilical vein. All other choices are long-term prognosis of polycythemia.
11.	(a)	Intraoperative contamination is the most common cause.
12.	(e)	Histiocytosis X does **not** respond to corticosteriod therapy.
13.	(c)	Positive predictive value A/A + B = 5/5 + 11 = 31%.
14.	(a)	Encopresis is normal up to 4 years of age.
15.	(a)	CT scan and MRI are **not** included in Sarnat staging.
16.	(b)	Fibroadenoma.
17.	(e)	Drowning is the specific cause. Most common cause of prehospital pediatric cardiopulmonary arrest is due to prolonged myocardial ischemia from untreated hypoxemia or untreated shock (not due to primary cardiac cause).
18.	(b)	Mixed metabolic and respiratory acidosis is the most common type.
19.	(c)	Mastitis is not a contraindication in breast-feeding. Breast feeding is allowed in CMV (full term infants) but contraindicated in preterm infants.
20.	(d)	Sucking and swallowing coordination appear at 34 weeks gestational age.
21.	(c)	Small intestine is foreshortened. 10% of cases are associated with intestinal atresia. Uimbilical cord is attached to the abdominal wall immediately to the **left** of the defect. Covering sac is **not** found; **normal** abdominal cavity size.
22.	(b)	Ultimate muscle mass and strength does improve with increased caloric intake and exercise.
23.	(a)	Elimination of galactose from diet does **not** invalidate enzyme assay, irrespective of duration of elimination.
24.	(e)	Fragile X-syndrome is diagnosed by DNA analysis. This syndrome is characterized by bilateral non-nodular macroorchidism and mental retardation.
25.	(b)	Neurologic abnormalities are absent in VACTERL anomaly (V for vertebral, A for anal, C for cardiac, TE for tracheoesophageal fistula, R for renal and abnormal radius, L for limb). This newborn has T-E fistula. The confirmatory diagnosis is made by X-ray that reveals coiling of nasogastric tube at neck.
26.	(e)	Amoxicillin is preferred therapy in acute otitis media. Other medications are **not** effective in acute otitis media.
27.	(a)	P. multocida is the most common organism in cat-bite wound.
28.	(c)	Retractile inguinal testis can be pushed down into the scrotum unlike undescended testis.

29. (e) Osteosarcoma is the diagnosis. It is most commonly associated with retinoblastoma.
30. (b) Immunization should be given for the benefit of the child.
31. (c) The child is 12-month-old.
32. (a) Swimming lessons to children **less than 4 years** old are ineffective.
33. (e) Soft-tissue sarcomas can occur in children who received radiotherapy for retinoblastoma.
34. (e) PCP (phencyclidine) use.
35. (a) Autosomal dominant because generation after generation is affected. Males and females are equally affected.
36. (b) Wiskott-Aldrich syndrome is X-linked recessive. This syndrome is characterized by thrombocytopenia, eczema, and increased infections.
37. (b) Overhydration is the most common complication. Therefore, fluid should be restricted for 24 hours.
38. (e) Hemolytic uremic syndrome is the most common cause of renal failure in children. **Coombs test is negative.**
39. (d) Addison disease (hypofunction of adrenal) has low Na, low cl, high K, and high renin.
40. (a) In Klinefelter syndrome most cases are **not** associated with advanced maternal age.
41. (a) Verapamil is **not** used in children less than 1 year of age because it reduces cardiac output and produces hypotension and cardiac arrest.
42. (b) Negative predictive value D/C + D = 30/20 + 30 = 30/50 = 60%. Please see the page 612, item 4.
43. (e) Protein 15%, carbohydrate 55%, fat 30%.
44. (a) An asthma patient's PFT result usually reveals **increased** RV, functional residual capacity (FRC), and total lung capacity (TLC); decreased VC, forced vital capacity (FVC), FEV_1, and peak expiratory flow rate (PEFR).
45. (d) Cholangitis which presents with Charcot's triad of fever, jaundice, and abdominal pain.
46. (c) 1-10 years old need 100-75 Kcal/kg body weight.
47. (e) TAPVR because all four pulmonary veins drain into right atrium. Pulmonary veins contain oxygenated blood to right atrium. Therefore, umbilical catheter in right atrium has higher oxygen than that of umbilical arterial line.
48. (d) Double birth height at 4 years.
49. (a) Duchenne muscular dystrophy is X-linked recessive.
50. (a) DiGeorge syndrome has normal thyroid gland.
51. (c) Cesarean delivery is recommended for active herpes lesions near time of labor.
52. (e) Subcutaneous fat necrosis usually resolves within weeks to months.
53. (b) All babies should sleep in supine position **except** in infants with micrognathia and obstructive sleep apnea.
54. (d) Most common associated anomaly in Prune-belly syndrome is musculoskeletal (e.g., limb anomalies and scoliosis).
55. (e) Vancomycin does **not** cause neutropenia. Aminopyrine and phenobarbital can cause neutropenia.
56. (a) 0.25 mg/day.
57. (b) Cephalhematoma spontaneously resolve within 2 weeks to 3 months.
58. (c) 3-4 feedings per day for a 6-month-old child.
59. (b) Sensitivity A/A + C = 10/10 + 20 = 10/30 = 33%.
60. (e) A malignant form of ventricular arrythmia called torsades de pointes occurs in patients with LQT syndrome and is a cause of syncope or sudden death.
61. (a) Autosomal recessive. Only one generation of family will have disease. Here two brothers are affected.
62. (b) Infection, SIRS, sepsis, severe sepsis, septic shock, MODS, and death.
63. (c) In Noonan syndrome 25% of cases are mentally retarded.
64. (c) Cleft palate is repaired before 12 months to allow normal speech development.

65. (b) Antibiotic is not effective and is not indicated unless the patient is acutely ill in cat scratch disease. It is a self-limiting disease.
66. (a) Ramsay-Hunt syndrome is caused by herpes zoster oticus with facial paralysis. About 50% of cases, facial nerve does not recover completely.
67. (a) Symptoms does not always depend on lead level.
68. (e) In Kasabach-Merritt syndrome, bone marrow has normal platelet count.
69. (b) In botulism, nasogastric or nasojejunal feeding should be started.
70. (d) Cutaneous anthrax is most common. Anthrax vaccine cannot be given to children. Ciprofloxacin is not approved for children under 18 years of age. Erythromycin is not effective.
71. (b) Smokeless tobacco is harmful. It can cause oral lesions and cancer. It should not be used at all.
72. (c) Shoulder injury is most common.
73. (b) E. coli and Vibrio cholerae produce enterotoxin.
74. (b) IgG.
75. (e) Bruises are most common manifestation of child abuse.
76. (d) Furosemide causes deafness.
77. (c) Maternal use of phenytoin causes hypoplastic nails in a newborn.
78. (d) Cerebellar astrocytoma (juvenile pilocytic) and medulloblastoma are the most common infratentorial brain tumor between age 1-10 years.
79. (d) Scleroderma is diagnosed clinically by major criterion (proximal scleroderma) or two of three minor criteria (sclerodactyle to digits, digital pitting, and bibasilar pulmonary fibrosis).
80. (c) Elevated glycine level in CSF is more specific than plasma and urine.
81. (b) Spastic diplegia is the most common type of CP.
82. (e) Marijuana intoxication decreases short-term memory, decreases temperature, increases heart rate, decreases bronchospasm, and reduces intraocular pressure.
83. (d) In ADPKD patient, subarachnoid hemorrhage may occur from associated cerebral artery aneurysm.
84. (c) Rubella does not have atypical lymphocyte.
85. (a) S. aureus is the most common organism in nonbullous impetigo.
86. (e) Severe eye injury cases should be referred to an opthalmologist immediately.
87. (e) 7-8 oz per feeding in a 6-month-old infant is recommended.
88. (e) Specificity D/B + D = 30/6 + 30 = 30/36 = 83%.
89. (c) X-linked recessive. Only male is affected and female is a carrier; more than one generation is affected.
90. (e) In an emergency condition, the surgeon should do the procedure to save the child’s life.
91. (b) Type 2B von Willebrand disease has low platelet count.
92. (c) TSST-1 is not useful because it is also produced by a normal S. aureus flora. Clinical presentation is diagnostic. Blood cultures is positive less than 5% of cases. About 33% of nonmenstrual cases do not produce TSST-1. Cultures are usually positive from the site of infection.
93. (d) Imperforate hymen is the most common cause of primary amenorrhea.
94. (e) Phosphaturic hypophosphatemia is the cause of rickets in RTA.
95. (a) Retinoblastoma is autosomal dominant.
96. (c) Ultrasonography is the definitive diagnostic study for DDH or CDH.
97. (b) Hyperthermia, acidosis, increase CO_2, increase ATP, and increase 2-3 DPG.
98. (b) Heart disease is most common in trisomy 18 (more than 90% of cases).
99. (e) Circumcision is indicated in UTI.
100. (b) Steroid can cause posterior subcapsular cataract.
101. (d) The child has meningitis because of high fever, lethargy, irritability, and back pain. He has no sore throat and pain in ears. His respiration is normal.
102. (e) CSF study is a confirmatory test in meningitis.

103. (e) CSF reveals elevated protein, high WBC counts, and decreased glucose levels.
104. (a) Intravenous antibiotics should be given as soon as possible. Currently, cefotaxime or ceftriaxone combined with vancomycin is recommended.
105. (d) Restricted to one half to two thirds of maintenance is recommended due to increased ADH (antidiuretic hormone) secretion.
106. (b) The child has brain tumor because of vomiting, headache, change of personality, and absence of fever. Nystagmus is a prominent sign in posterior fossa tumor.
107. (c) MRI is the best method to diagnose posterior fussa tumor.
108. (a) Surgical resection of cerebellar astrocytoma (most common posterior fossa tumor) is preferred therapy.
109. (a) Hydrocephalus and increased ICP (intracranial pressure) are usual complications.
110. (e) Sinusitis is absent in infectious mononucleosis.
111. (c) Leukocytosis is common; mild thrombocytopenia may occur.
112. (c) Antibiotic is contraindicated.
113. (e) EBV is responsible for 90% of cases infectious mononucleosis.
114. (b) Hepatic failure does not occur.
115. (e) Splenic rupture is the most dangerous complication. “Alice in Wonderland” syndrome (perceptual distortions of space and size).
116. (e) The child has salt-losing type of CAH (congenital adrenal hyperplasia).
117. (e) Corticosteroid plus sodium is the definitive therapy.
118. (a) CVS, then HLA typing or DNA analysis.
119. (a) Gonads should not be removed.
120. (b) Growth failure may occur due to renal and cardiac abnormalities.
121. (c) Oral antibiotic prophylaxis is indicated.
122. (a) Usual height is less than 10th percentile. She will grow after hormonal therapy if her height age is more than bone age. A patient with normal GH and TSH levels does **not** achieve normal height.
123. (c) Increased risk of Down syndrome in the offspring of a Turner syndrome patient if she is fertile.
124. (e) Bronchial foreign body should be removed as soon as possible.
125. (a) OTC deficiency is the most common type of urea cycle defects.
126. (e) 0.9% Nacl or Ringer lactate 20 mL/Kg over is given over 20 minutes in emergency phase to a patient with 10% isonatremic dehydration.
127. (a) Physician should **not** recommend a definite amount of given food.
128. (c) TCA (tricyclic antidepressant) can cause sudden death.
129. (d) 2% to 6%.
130. (e) 36 th week.
131. (b) Mild microcephaly is present in this syndrome.
132. (d) Catch-up growth in weight occurs about 24 months.
133. (a) A blind sweep of mouth is contraindicated.
134. (d) Ringer lactate; 0.9% Nacl 20 mL/Kg over 20 minutes. If no improvement, give another 20 mL/Kg over 20 minutes. The child has 15% dehydration.
135. (a) Double the birth weight at 5 months.
136. (c) Metatarsus adductus/varus is due to intrauterine position; resolves spontaneously in 90% of cases.
137. (e) No clear discharge. Facial paralysis develops later.
138. (c) IUGR.
139. (c) Back blows, chest thrusts, mouth open and remove foreign body. Abdominal thursts are contraindicated.
140. (a) Maternal age is **not** advanced in most cases.
141. (a) Diminished secretion of vasopression in diabetes insipidus.

142. (e) Acetylcholine causes bradycardia, salivation, loose stool, and miosis.
143. (d) Low hemoglobin, low MCV, and low reticulocyte count.
144. (a) Gradenigo’s syndrome or petrous apicitis is a triad of otitis media, retroorbital pain, and 6th cranial nerve palsy.
145. (d) Omphalocele may be associated with trisomies (13, 18 and 21); covered with sac, small abdominal cavity; umbilical cord inserts into the sac; surgery is required.
146. (a) Enuresis is normal up to **5 years** of age.
147. (b) Tardive dyskinesia is caused by neuroleptics (e.g., chlorpromazine and haloperidol).
148. (c) Type IV is most common and most severe; butterfly rash and Raynand phenomenon are present; anti-DNA is more specific and reflects degree of disease activity; anti-sm antibody does **not** measure disease activity; positive ANA is not specific for lupus.
149. (d) Weight for height.
150. (a) Overall accuracy A + D/A + B + C + D = 20/33 = 60.6%. Please see the page 613, item 5.
151. (c) Low phenylalanine diet should be given before conception.
152. (e) Vomiting will resolve after the obstruction is relieved by surgery.
153. (b) Growth hormone is elevated in anorexia nervosa; occurs in all socioeconomic classes; resistant to infection; hair loss during overfeeding state; hypochloremic alkalosis occur; death occurs due to electrolyte imbalance and cardiac arrythmia.
154. (c) Waardenburg syndrome patient has white forelock and congenital deafness.
155. (c) Hematuria with proteinuria indicate kidney source; hematuria means more than 5 RBC per high power field; it can occur in fever, exercise, gastroenteritis, respiratory infection, and viral infection.
156. (d) Normal CBC results.
157. (e)
158. (d) Norwalk virus is the most common cause of large explosive diarrhea from contaminated water or shellfish among older children in schools, hospitals, and cruise ships.
159. (a) Herpetic lesions in mouth and genitalia are not a contraindication to breast feeding.
160. (e) 4 Kcal protein and carbohydrate; 9 Kcal fat (long chain).
161. (d) Pure, plain, cold water is the best fluid.
162. (d) 300 calories extra i.e., 2,400.
163. (a) This is a typical presentation of lactase deficiency. It is common in premature and in children after 3 years of age.
164. (c) Valproic acid can cause spina bifida
165. (c) BPD patients usually recover by 6-12 months.
166. (a) This is a typical presentation of glucose-galactose malabsorption. The patient improves with fructose.
167. (b) Soy formula causing watery diarrhea, absence of recurrent abdominal pain, and absence of reducing substance in stool specimens are characteristic of sucrase-isomaltase deficiency. The patient improves without sucrose (Soy) containing formula.
168. (b) CT scan is the best procedure to diagnose splenic trauma.
169. (a) It is not necessary to discontinue morphine before extubation.
170. (a) Subcutaneous emphysema is the most pathognomonic sign of pneumomediastinum.
171. (c) Henoch-Schonlein purpura has normal platelet count; elevated IgA and IgM; intussuception, hematuria, and proteinuria are not present in all cases.
172. (e) Conversion disorder because it appears suddenly. The patient complains of voluntary muscle and special senses. The neurological examination is normal.
173. (b) Mother should call poison control center first. Ipecac should be given.
174. (a) The fever in excess of 41°C is rarely associated with infection. Central nervous system dysfunction that involves the hypothalamus can cause fever above 41°C.
175. (e) Hypothalamic disorder causes hyperpyrexia.

176. (d) Hypernatremic dehydration should be corrected over 48 hours; calculate at least 10% dehydration.
177. (c) Patient usually recovers while breast-feeding.
178. (e) Urine culture for CMV is the definitive diagnostic study for congenital CMV infections.
179. (b) Temperature-pulse dissociation or relative bradycardia does not occur in malaria.
180. (a) Neither disease nor immunization against pertussis provides complete and lifelong immunity against disease or reinfection.
181. (e) Submucous cleft is an associated finding.
182. (d) Tanner stage 3; areola and nipple form secondary mound in stage 4. Pubic hair is coarse in stage 4.
183. (b) Tanner stage 4; nipple projects in stage 5; pubic hair spread to medial side of thigh in stage 5.
184. (e) Tanner stage 5.
185. (c) Tanner stage 2.
186. (a) Sinusitis because symptoms persist more than 10 days, URI usually improves in 10 days; sinus pain and tenderness may be absent in children.
187. (b) This boy is normal.
188. (c) Congenital cataract results in absent retinal reflex of that eye. Retinal detachment causes white pupillary reflex. The description of forcep delivery and low Apgar scores are misleading.
189. (e) Reduce caloric intake for at least 6 months to 1 year is **not** easy to comply.
190. (d) Hypotension and prolonged capillary refilling time indicate decreased cardiac output.
191. (c) CSF VDRL and long bone x-ray will confirm congenital syphilis.
192. (e) Mental retardation (3% of general population) is most common.
193. (d) Thalassemia minor (normal hemoglobin, hematocrit, and reticulocyte count; low MCV).
194. (a) Vaginal foreign body.
195. (c) Hypertension screening should begin at 3 years of age.
196. (e) Abdominal ultrasonography should be performed to rule out adrenal cortical tumor with or without Cushing syndrome.
197. (a) Packed-RBC transfusion should be given for anemia.
198. (b) Start inhaled steroids and discontinue oral steroids.
199. (d) Perforation can occur in nasojejunal feeding.
200. (e) Germ cell tumor is the most common testicular tumor in adolescent and adults.
201. (c) Gentamicin may cause sensorineural hearing loss.
202. (d) 5th, 7th, and 12th cranial nerves are responsible for sucking.
203. (d) Migraine is the most common cause of headache in children.
204. (b) 9th, 10th, and 12th cranial nerves are responsible for swallowing.
205. (c) Scoliosis occurs during peak height velocity i.e., 12 years in female.
206. (c) Scoliosis occurs in 14 years in male.
207. (e) Resume iron-fortified formula because iron does not cause constipation. The infant is not constipated.
208. (a) Fluorinated steroids cause myopathy. However, glucorticoid may be used. Vitamins are **not** useful; no specific therapy is available.
209. (e) Fluid in the fissure and hyperinflation indicate TTNB.
210. (c) 80-100 mL/Kg/day.
211. (a) TPN-induced cholestasis is mostly due to multifactorial causes (e.g., bacterial endotoxins, specific amino acids, aluminum, copper, and manganese.
212. (e) It is a severe form of acute sinusitis but less commonly noted.
213. (b) Vitamin D should be given.
214. (e) 21-hydroxylase deficiency.
215. (d) Both cats and dogs can produce asthma.

216. (c) Foreign body in the esophagus should be removed as soon as possible.
217. (c) Delayed speech and language are the first signs.
218. (b) Hyperglycemia is due to peripheral resistance to insulin; the deleted chromosome is paternally derved; hypotonia and hypergonadism are clinical findings.
219. (b) Throat culture should be obtained from students who developed the symptoms of streptococcal pharyngitis.
220. (e) UTI should be ruled out in secondary enuresis.
221. (c) A patient with allergic rhinitis can develop asthma.
222. (e) Tissue biopsy is the definitive diagnostic test for sarcoidosis.
223. (c) Hereditary spherocytosis presents with anemia, jaundice, and spherocytes (in peripheral smear).
224. (d) Pasteurella multocida is the most common organism in cat bite wound.
225. (a) MCT is better absorbed than LCT.
226. (a) A 5-year-old can copy a triangle.
227. (b) Tanner stage 2.
228. (c) Tanner stage 3.
229. (d) Tanner stage 4.
230. (e) Tanner stage 5.
231. (e) Hyponatremic dehydration (less than 10%); Nacl deficit (135-120) x body weight x 0.6 = 180 mEq; Nacl maintenance (4 mEq/kg) = 4 x 20 = 80 mEq per day; D_5 water plus total 260 mEq of Nacl should be given over 24 hours; add K acetate after urine output.
232. (a) Listeria meningitis because Gram positive rod like diptheroid.
233. (d) Familial short stature.
234. (b) Head CT scan to rule out any intracranial hemorrhage.
235. (c) PPD test is indicated.
236. (a) Renal osteodystrophy is diagnosed due to low Ca, high P, high PTH, high alkaline phosphatase, and characteristic bone x-ray findings.
237. (e) Pneumococcal infection is most common in sickle cell disease.
238. (d) Varicella vaccine is recommended.
239. (e) Mild mental retardation is usually diagnosed at school entry age.
240. (d) UTI prophylaxis is not indicated in phimosis.
241. (b) RSV is the most common organism in acute bronchiolitis.
242. (a) Phenobarbital increases theophylline clearance and decreases its toxicity.
243. (b) The maximum temperature of home water heater should **not** exceed 125°F to avoid hot-water scalding injury.
244. (a) Bilateral acoustic neuromas are the most characteristic features of neurofibromatosis (NF-2).
245. (d) PCP pneumonia; mother died due to HIV infection.
246. (d) Normal siblings should receive penicillamine therapy to prevent disease completely or cure them. Family members require screening for presymtomatic Wilson disease.
247. (e) Galactosemia presents with hepatomegaly and Gram-negative sepsis.
248. (a) SCID patient appears with FTT, and recurrent infections (e.g., Candida albicans, Pneumocystis carinii, CMV, Epstein-Barr virus).
249. (c) Radionuclide bone scan can detect osteomyelitis early.
250. (b) Cerebral edema occurs due to rapid infusion of intravenous fluid.
251. (c) 100 Kcal/kg/day.
252. (e) 18:82.
253. (a) Spinal cord compression does not occur in scoliosis.

254. (b) IgM.
255. (a) Lithium ingestion causes decreased anion gap.
256. (c) CMV.
257. (e) Tympanic membrane.
258. (d) Height is reduced due to vertebral compression.
259. (e) Expressive language development.
260. (e) Failure to take insulin is the most common cause of DKA in adolescent children.
261. (b) Infantile botulism.
262. (e) Breast enlargement usually disappears within a few weeks.
263. (c) ABG is the most important.
264. (c) Pain medication should be given.
265. (e) Superiorly and temporally dislocation of lens occur in Marfan syndrome. In homostinuria, the lens is displaced inferiorly and nasally.
266. (c) Alcohol causes erosive gastritis.
267. (a) Congenital bicuspid aortic valve is an associated anomaly in coarctation of aorta..
268. (e) Streptococcus pneumoniae.
269. (d) Increased PT is the first sign of liver damage.
270. (b) Iron tablets are radioopaque.
271. (c) Rubinstein-Taybe syndrome patient appears with broad thumbs and broad big toes.
272. (d) Imipramine is anticholinergic, therefore it causes dry mouth.
273. (c) Histoplasmosis
274. (b) Sucking blister will disappear spontaneously.
275. (d) Duodenal atresia is common in Down syndrome.
276. (e) Turner syndrome is **not** mentally retarded.
277. (c) M type 4 does not cause acute rheumatic fever. M type 6 can cause acute rheumatic fever.
278. (a) Migraine.
279. (d) Ash-leaf (90% of cases, hypopigmented skin lesion).
280. (c) Scald burns (85% of total cases).
281. (e) Vitamin K dependent factors (II, VII, IX, X).
282. (e) Ionizing radiation can cause solitary thyroid nodule.
283. (b) Don’t do anything to child.
284. (c) Sturge-Weber syndrome.
285. (e) Barbiturate poisoning.
286. (e) Benign tumor.
287. (c) 50%; hemophilia is a x-linked recessive .
288. (d) Aortic valve stenosis.
289. (c) Methylphenidate can cause tics if there is a family history.
290. (a) Turner syndrome.
291. (c) 5-7 months.
292. (e) PCR (polymerase chain reaction) study and Chlamydia trachomatis culture are diagnostic.
293. (c) 60%; incidence rate: A/A + B = 60/60 + 40 = 60%.
294. (e) Aerosolized epinephrine is used, corticosteroids may be useful.
295. (d) Shaken baby syndrome.
296. (a) Breast feeding should be continued.
297. (b) Otitis media is not caused by influenza virus.

298. (c) Lyme disease.
299. (e) CMV.
300. (d) Always rule out hyperlipidemia and pre-existing liver disease.
301. (e) Calcium.
302. (a) Incidence rate of SGA in exposed group to maternal smoking: A/A + B = 120/120 + 80 = 60%. Incidence rate of SGA in non-exposed group: C/C + D = 40/40 + 160 = 20%.

     Relative risk: incidence rate of exposed group is divided by the incidence rate among non-exposed group = 60% / 20% = 3%.
303. (c) Spiral fracture.
304. (d) D-antigen.
305. (e) VSD can be present in any newborn.
306. (d) Wrestling.
307. (c) Firearm injuries and deaths are most common.
308. (d) Munchausen by proxy syndrome.
309. (c) Facial or 7 th cranial nerve.
310. (e) Odds ratio: (A x D)/(B x C) = (30 x 40)/(20 x 10) = 6.
311. (c) Ampicillin plus gentamicin.
312. (a) Febrile seizure.
313. (e) TSH.
314. (e) IgE.
315. (c) Fecal incontinence.
316. (b) Streptomycin.
317. (a) Oral deferoxamine should not be used. Ipecac-induced emesis may be useful to remove tablets from the stomach.
318. (d) Neuroblastoma.
319. (e) von-Willebrand disease.
320. (a) Pulmonic stenosis.
321. (e)
322. (d)
323. (c) BBTD.
324. (b) VZIG should be given to the baby. If the mother develops chicken pox within 5 days before and within 2 days after delivery.
325. (d) Type 6 and 11.
326. (c) Irrigation with antibiotic-containing solution is **not** recommended.
327. (e) Cervical x-ray to rule out atlantoaxial subluxation.
328. (a) Autosomal recessive.
329. (c) 18-month-old.
330. (e) Breast-feeding jaundice.
331. (d) Cyclosporine.
332. (c) IV calcium gluconate.
333. (e) Dysarthria does **not** occur.
334. (e) Chronic granulomatous disease.
335. (a) Selective IgA deficiency.
336. (b) Incidence rate among exposed group: A/A + B = 300/300 + 200 = 60%; incidence rate among non-exposed group: C/C + D = 100/100 + 400 = 20%. Attributal risk = 60% - 20% = 40%.
337. (c) Alanine is decreased.

338. (d) Decorticate posture.
339. (b) 3 years of age.
340. (b) Retinoblastoma.
341. (e) TAR syndrome.
342. (e) A functional systolic murmur over pulmonary area may be present. Please see the page 21, item 71.
343. (e) Re-examination of around 2 months after initial therapy because most patients become effusion free by 2 months of age.
344. (d) Elevated T4 and T3; decreased TSH.
345. (e) Burn less than 10% of body surface.
346. (e) Decrease theophylline by half.
347. (c) Breast milk contains low iron, low calcium, low phosphorus, low vitamin K, and high cholesterol.
348. (c) Vaccine should **not** be given in gluteus muscle.
349. (c) 9-15 months of age.
350. (e) Right optic tract.
351. (e) At least two retroviral drugs should be changed.
352. (a) Periodic breathing that is normal.
353. (e) Serum glucose concentration to rule out hypoglycemia or stress hyperglycemia
354. (e) Excessive solid food intake can cause obesity due to high calories.
355. (e) Fracture clavicle usually heals within 2 weeks.
356. (a) Croup.
357. (d) Hypochloremic metabolic alkalosis is present.
358. (c) CMV causes sensorineural hearing loss.
359. (a)
360. (d) Cerebral edema and convulsion.
361. (a) Oral rehydration therapy.
362. (b) 20-30 hours per week.
363. (b) Nitric oxide maintains systemic blood pressure.
364. (e) Muscle biopsy.
365. (a) No antibiotic is necessary unless a specific diagnosis is made.
366. (e)
367. (c) Parvovirus B19 infection causes hydrops fetalis.
368. (e) Testicular atrophy.
369. (c) CMV seropositive pregnant mothers have a **low risk** of delivering a child with CMV.
370. (e) Normal retina.
371. (c) Middle-ear deafness.
372. (c) Klebsiella pneumonia causes bulging fissure.
373. (d) Ethanol consumption.
374. (a) G6PD deficiency.
375. (b) Take unrestricted fluids.
376. (b) Double the birth weight at 5 months of age.
377. (c) Double the birth height at 4 years of age.
378. (d) The boy is normal.
379. (b) Elevated PCO_2.
380. (a) Hematoma in the left thigh.
381. (e) MRI.

382. (b) 4%.
383. (c) Most full-term and preterm infant pass meconium within 48 hours.
384. (d) Selenium.
385. (e) Cholesterol level less than 170 mg/dL is normal.
386. (e) Out-toeing resolves spontaneously.
387. (e) Rubella virus does not cause Bell’s palsy.
388. (d) It is five times half-life.
389. (a) Calcuria.
390. (c) Upper GI series demonstrates malposition of the ligament of Treitz. Barium enema demonstrates malposition of the cecum but is normal in 10% of cases.
391. (e) Physiologic pubertal gynecomastia.
392. (b) 46, XX.
393. (d) Weight loss may result in 5-10 mm Hg reduction in blood pressure.
394. (e) Cardiac abnormalities.
395. (b)
396. (b) Cow’s milk has low vitamin D.
397. (a) Heat illness.
398. (c) Wilms tumor.
399. (e) Habit cough.
400. (d) Expansion of intravascular volume.
401. (a) Pseudomonas.
402. (c) Ankle.
403. (e) Congenital aortic stenosis.
404. (e) Beta-hemolytic Streptococci.
405. (e) INH does not cause hypoadrenalism.
406. (c) A transient urticarial rash is not a contraindication to vaccination.
407. (d) Congenital heart block.
408. (b) Catamenial pneumothorax.
409. (d) Methemoglobinemia does not improve with oxygen therapy.
410. (e) Cystitis.
411. (a) Adenoidectomy is not indicated in recurrent acute otitis media.
412. (e) Intravenous cefoxitin plus PO or IV doxycycline.
413. (d) Bezoar.
414. (e) Extrahepatic biliary atresia.
415. (a) URI.
416. (c) S. epidermidis.
417. (d) Selective IgA deficiency.
418. (a) Brain grows 12 cm in 1st year.
419. (c) Normal fat.
420. (e) Gonococcus.
421. (a) High-risk when there is a balanced translocation between chromosomes 14 and 21.
422. (e)
423. (e) Glucose intolerance.
424. (e) Loss of hearing.
425. (a) Anterior cruciate ligament injury occurs with sudden jumping.

426. (d) Common migraine.
427. (e) Vertical transmission from mother
428. (e) Confined in a room for 48 hours
429. (b) VSD
430. (b) Oral contraceptives
431. (e) Decrease the dose by 10%
432. (c) Reduction of number of infections
433. (d) Refer to a ENT doctor.
434. (d) Early screening inventory (3-6 years of age)
435. (e) Moderate exercise is contraindicated.
436. (d) MGCS is 7.
437. (c) Cataract.
438. (a) Isovaleric acidemia.
439. (a) Correct respiratory acidosis before metabolic acidosis
440. (c) Desipramine.
441. (e) Ultrasonography.
442. (a)
443. (c) Intussuception.
444. (d) MMR should be given
445. (c) X-linked recessive
446. (d) Epidural hematoma.
447. (b) Syncope.
448. (c) Acidosis.
449. (e) Diffusing capacity of carbon monoxide
450. (b) Renal failure with CNS damage. Zinc deficiency causes acrodermatitis enteropathica.
451. (a) Subglottic hemangioma.
452. (c) DiGeorge syndrome.
453. (a) May cause CNS damage.
454. (c) Cerebellar astrocytoma (15%), medulloblastoma (15%), and brainstem glioma (15%).
455. (d) Trisomy 13.
456. (a) Decreased cardiac output.
457. (d) Influenza vaccine and yellow fever vaccines contain egg protein.
458. (d) 25%.
459. (b) Macrocephaly.
460. (e) Functional murmur.
461. (d) Normal vaginal discharge.
462. (b) Naloxone or Narcan should be given for morphine intoxication.
463. (c) Hyperactivity.
464. (a) Dietary history is **not** helpful.
465. (e) Surgical intervention is indicated after 9-12 months of adequate rehabilitation.
466. (e) Intracerebral bleeding.
467. (a) Nocturnal LH pulses.
468. (d) S. epidermidis.
469. (b) Trisomy 18.
470. (d) Delayed puberty.

471. (b) High PIP.
472. (a) Erythromycin.
473. (b) Streptococcus pneumoniae.
474. (d) IgM-ISAGA.
475. (c) Paranasal sinusitis.
476. (b)
477. (c)
478. (d) Cardiac, mitral valve prolapse.
479. (c) Type III.
480. (e) Congenital renal disease.
481. (e) ACTH.
482. (a) Hepatoblastoma.
483. (e) Fragile x-syndrome.
484. (e) IgE.
485. (c) Amphotericin B.
486. (a) Coxsackievirus A16
487. (d) Viral infection.
488. (c) Foramen ovale usually close by 3 months of age.
489. (a) Hematuria (gross or microscopic).
490. (e) Family member has AIDS
491. (d) Adenoma
492. (c) 6%. The risk to offspring of a diabetic parent is 2-5%, but the risk is higher when father has diabetes.
493. (b) Wilson disease.
494. (c) No therapy is indicated.
495. (a) Early placental separation.
496. (a) Sodium is a growth factor.
497. (a) Insulin is a growth factor for a fetus.
498. (e) Both have similar calories, water and solid contents.
499. (a) Erythroblastosis fetalis is not a contraindication.
500. (b) Sotos syndrome.
501. (b) Normal.
502. (a) Fitz-Hugh-Curtis syndrome.
503. (e) Recurrent URI.
504. (a) Bilious vomiting.
505. (d) Toxoplasmosis.
506. (c) Folic acid deficiency.
507. (e) Talk to the patient and his parents
508. (b) No therapy is indicated.
509. (b) Chorionic villous sampling.
510. (e) Lipoteichoic acid-peptidoglycan complex
511. (e)
512. (a) Tell parents to allow normal physical activities.
513. (b) Between 13-14 years.
514. (d)
515. (c) Dehydrotestosterone.

516. (e) II, VII, IX, X.
517. (b) Hydrocephalus.
518. (c) C7-T1.
519. (a) Inhaled albuterol.
520. (d) Rotavirus.
521. (a) Recurrent bacterial vaginosis due to a foreign body.
522. (e) Prone position in infants is indicated in patients with reflux because supine and side positions cause more reflux.
523. (e) TDF.
524. (d) Cardiomegaly.
525. (c) Fever.
526. (b) Topical or systemic antibiotic is used for a secondary bacterial infection of the excoriated lesions. Lindane should not be used for premature infants, and persons with known seizure disorders, and persons with hypensensitivity to lindane. Environmental disinfestation is **not** indicated but vacuuming of home is recommended for a patient with crusted scabies. Prophylactic therapy is recommended for household members. Children should be allowed to return to school or child care after completion of therapy.
527. (a) IUGR.
528. (c) Observation. Correction is not indicated if the rotation is less than60 degrees from the midline.
529. (c) O(+).
530. (c)
531. (b)
532. (e) Aneuploidy (missing or extra chromosome)
533. (a) Within the 1st hour
534. (e) Joint fluid analysis is the best diagnostic method.
535. (e) Retrobulbar neuritis is not visible by an opthalmoscopic examination.
536. (b) Otorrhea.
537. (c) Pseudomonas.
538. (b) Idiopathic nephrotic syndrome that required prednisone therapy.
539. (d) Pheochromocytoma.
540. (a) Fallopian tube.
541. (d) Amnioinfusion.
542. (e)
543. (b) Wilson disease.
544. (e) Betamethasone and dexamethasone.
545. (d) Initially obstructive, then restrictive lung disease.
546. (d) Remove umbilical arterial catheter
547. (e)
548. (d) Rhabdomyosarcoma.
549. (c) Propranolol causes hypoglycemia.
550. (c) To hold the baby now
551. (e) Sodium valproate.
552. (b) Transient renal failure.
553. (b) 25 to 45 gm.
554. (c) At 10 years.
555. (b) SMR 2 at 11 years.
556. (e) Gymnastic.

557. (c) 11 beta-hydroxylase deficiency causes hypertension.
558. (a) Surprisingly, about 30% of pedestrian injuries occur in a marked crosswalk.
559. (e) Bone age.
560. (e) Pseudomembranous colitis.
561. (b) S. penumoniae
562. (d) Tricuspid regurgitation.
563. (e) Soy protein allergy.
564. (a) PKU.
565. (e) Late metabolic acidosis.
566. (b) Both an undescended testis and a normal testis can turn into malignancy. Surgical correction cannot prevent malignancy. A close follow-up does not decrease the incidence of malignancy.
567. (b) Audiologic evaluation is indicated to rule out hearing loss.
568. (d) Alport syndrome has sensorineural deafness.
569. (b) Chylothorax.
570. (e) Familial hypophosphatemia.
571. (e) Reassurance only.
572. (c) Anemia of prematurity.
573. (b) High phosphate cow’s milk depresses serum Ca.
574. (a)
575. (b) High PCO_2 increases ICP.
576. (e) Hashimoto or autoimmune or lymphocytic thyroiditis.
577. (a) Autosomal dominant.
578. (e) The boy needs oxygen by bag and mask. The infant usually improves with that therapy.
579. (d) DTaP. For children after their 7th birthday, tetanus immunization should consist of DT (adult-type diptheria and tetanus toxoids).
580. (d) IV corticosteroids during the perioperative period is the appropriate management.
581. (e) Testicular feminization syndrome.
582. (e) Pseudomonas aeruginosa.
583. (b) Hypopituitarism.
584. (c) Physiologic vaginal discharge.
585. (e) Congenital absence of depressor angularis oris muscle
586. (d) Hydralazine.
587. (b) Erythromycin.
588. (a) Prostaglandin.
589. (c) Corticosteroid.
590. (a) The child should have a normal life.
591. (c) 4%.
592. (e) A ratio of pleural protein to serum protein is less than 0.5.
593. (b) Shigella.
594. (a) Brain.
595. (a) Brain.
596. (d)
597. (b) Malignant melanoma.
598. (c) Alcohol causes hypoglycemia.
599. (c) Thalassemia minor.

600. (e) Compensated respiratory acidosis.
601. (e) No currently recommended vaccines contain penicillin or its derivatives.
602. (d) Morphine.
603. (b) Cardiomyopathies.
604. (d) Phenobarbital.
605. (b) Lorazepam or diazepam or midazolam.
606. (e) Chorionic villi biopsy (CVS).
607. (c) Foreign body in esophagus.
608. (e) Tunnel vision and normal pupils suggest hysterical blindness.
609. (b) Transient hypoparathyroidism.
610. (c) Head CT scan.
611. (a) Craniopharyngioma.
612. (d) Diabetic cardiomyopathy
613. (b) Laparatomy is indicated for an intestinal perforation.
614. (c) Esophageal perforation can occur accidentally during the insertion of a orogastric tube.
615. (c) Corporal punishment is not allowed. The effect of corporal punishment is inconclusive.
616. (d) Brain abscess.
617. (a) Elevated gammaglobulin levels in serum.
618. (e) Deficiency of essential fatty acids, therefore, give intralipid.
619. (d) 6-7 years.
620. (e) A severe perinatal asphyxia causes severe metabolic acidosis.
621. (a) There should be no restriction of fat or cholesterol for infants younger than 2 years because of high energy requirements for their rapid growth.
622. (c) 44%.
623. (b) Tissue thromboplastin.
624. (e) Riley-Day syndrome.
625. (d) Child abuse.
626. (a) First day.
627. (e) Physician has failed to give maintenance Nacl to this newborn.
628. (a) Increased ADH secretion (SIADH) occurs due to meningitis.
629. (d) 32 weeks gestational age.
630. (c) A defect in 3rd and 4th pharyngeal pouch cause DiGeorge syndrome.
631. (a) Acid alpha-glucosidase. (Acid maltase)
632. (e) Varicella. HIV-infected children should also receive hepatitis B, pneumococcal, and haemophilus influenzae type b vaccines. Mild to moderate HIV-infected children can receive varicella vaccine.
633. (a) C2 deficiency causes pneumococcal infection.
634. (b) Subdural effusion.
635. (e) Positional.
636. (d) Wilms tumor has no calcification or rarely causes calcification.
637. (e) Erythema migrans.
638. (c) E. coli
639. (e) The tick embeds its head into skin.
640. (d) Sweat chloride test should be repeated after a few weeks of age.
641. (e) A well-controlled diabetic patient should have normal growth and development.
642. (d) Penicillin prophylaxis.

643. (a)
644. (b) Obstructed right inguinal hernia.
645. (e) Dexamethasone can cause rebound fever after the last dose.
646. (c) Initially lorazepam followed by phenytoin
647. (e) Reassurance
648. (e) Vertical transmission from HIV-infected mothers
649. (d) Insulin is decreased.
650. (a) Blindness does not occur.
651. (e) Nelson syndrome.
652. (e) Asymptomatic.
653. (a) Asymptomatic.
654. (c) Neural tube defects.
655. (b) Down syndrome patients do not have mitral valve prolapse.
656. (e) Learning difficulty
657. (b) HPV.
658. (a) Chlamydia infection.
659. (b) Meningococci is not detected by CIE.
660. (a) P.M. dose of insulin controls the A.M. blood sugar.
661. (c) Decrease the P.M. dose of regular insulin (correct answer).
662. (a) Otitis media.
663. (a) Sinus aspirate.
664. (b) 'ABO' hemolytic disease has spherocytes in peripheral blood smear.
665. (d) Zinc.
666. (a) Vitamin A toxicity. Acute vitamin A toxicity can cause papilledema and cranial nerve palsy like pseudotumor cerebri.
667. (c) Wound culture is not indicated.
668. (d) Chicken pox occurs after herpes zoster infection.
669. (e) EBV.
670. (e) Hodgkin's disease. Reed-Sternberg giant cells (i.e. multiple or multilobulated nuclei) are also present in non-Hodgkin's lymphoma and infectious mononucleosis.
671. (a) Chlamydia trachomatis.
672. (c) Zinc deficiency.
673. (c) Hepatobiliary scan.
674. (a) Interalveolar vessels.
675. (b) 2 years of age.
676. (d) Autism.
677. (d) Bruton disease. The serum concentration of total immunoglobulin is less than 100 mg/dL.
678. (d) Body mass index (weight/stature squared in Kg per meter squared).
679. (b) Lipid deficiency.
680. (e) TPN.
681. (e) Normal findings.
682. (e) Renal abnormality.
683. (e) Vivid dreams.
684. (e) Head CT scan to rule out a fracture.
685. (c) Pseudotumor cerebri.

686. (a) Chlamydia trachomatis.
687. (b) Phage group II.
688. (c) Vagus nerve.
689. (d) Diphenhydramine.
690. (b) Delayed fine motor.
691. (c) S. epidermidis.
692. (e) 12th cranial nerve (glossopharyngeal).
693. (a) Do not use cholestyramine in pseudomembranous colitis.
694. (a) Leukopenia.
695. (e) No renal disease.
696. (c) Decreased fibrinogen.
697. (e) Between 3 to 4.
698. (e) Protamine sulfate.
699. (a)
700. (b)
701. (c)
702. (c) Indomethacin is contraindicated in patients with bleeding disorder, NEC, oliguria (less than 1 mL/kg/hr), elevated creatinine level (more than 1.8 mg/dL), and thrombocytopenia (less than 50,000/mm^3).
703. (e) BPD; elevated pH, PCO_2, and HCO_3.
704. (a) Normal.
705. (c)
706. (e) Pityriasis rosea.
707. (a) Elimination of prenatal smoking reduces the risk of SIDS. However, it is **not** related to increased birth weight of infants whose mothers quit smoking.
708. (c) Hydrocephalus and increased ICP
709. (d) Mycoplasma pneumoniae. Recurrence may be triggered by drugs (e.g., sulfonamide, NSAIDs, phenytoin) and an infection by a herpes simplex virus.
710. (d) Stool cultures are not indicated for all exposed and asymptomatic children.
711. (c) Pneumothorax causes restrictive lung disease.
712. (a) Emphysema causes obstructive lung disease.
713. (a) Hypertension.
714. (c) Bleeding can occur due to a deficiency of vitamin K dependent factors.
715. (c)
716. (a)
717. (e)
718. (b)
719. (b) HIV DNA PCR.
720. (e) Phenytoin.
721. (a) Phenobarbital.
722. (b) RSV.
723. (e)
724. (d) Unilateral renal agenesis is most common anomaly.
725. (e)
726. (c) Brain DNA.
727. (a) Perineal fistula
728. (d) Phosphatidylglycerol

729. (e) Sagittal sinus thrombosis.
730. (c) Enterotoxigenic E. coli.
731. (e) Swallowed-blood syndrome.
732. (b) 2-month-old.
733. (e) lower limit of normal WBC count, low polymorphs, low ANC, low platelet count, normal hemoglobin, and normal hematocrit. Hematologic pictures of (a) may indicate an infection, (b) indicates a normal finding, (c) may indicate necrotizing enterocolitis, and (d) indicates polycythemia.
734. (d) Contamination of specimen with blood will not alter L:S ratio 2:1 or more because maternal and fetal blood L:S ratio is about 1:4.
735. (a) Cardiac arrythmia.
736. (c) She passes stool on time
737. (a) Infant’s heart rate reactivity to fetal movement.
738. (b) Osteogenesis imperfecta
739. (d) Streptococcus pneumoniae.
740. (a) Continue breast feeding every 3 hours.
741. (e) New injury.
742. (c) Oral hydration therapy without parenteral fluid
743. (c) 50%. Neurofibromatosis is a autosomal dominant.
744. (a) T3.
745. (d) Pertussis.
746. (c) Vitamin E deficiency can occur in a patient with biliary atresia resulting in cerebellar ataxia, posterior column abnormalities, and peripheral neuropathy.
747. (c) Phencyclidine intoxication causes hallucination, euphoria, ataxia, nystagmus, and emotional lability. Hallucination may result in distortion of body image and panic reaction.
748. (c) Pork
749. (b) Streptococcus viridans.
750. (d)
751. (b) Pseudomonas aeruginosa.
752. (a) S. aureus.
753. (d) Increased lymphocyte, increased protein, decreased glucose
754. (e) Protein (20%), fat (50%), carbohydrate (30%)
755. (a) 0-3 months.
756. (b) MMR.
757. (e) Bone age.
758. (e) Normal for his age.
759. (b) 6-7 years.
760. (b) Laser therapy.
761. (e) Give baby back to mother until stops crying, then examine him.
762. (c) Pseudohyponatremia. Serum sodium is low because of high glucose. The blood specimen was drawn from the same hand in which intravenous fluid was running.
763. (e) Subconjunctival hemorrhages resolve spontaneously.
764. (b) S. epidermidis.
765. (c) Hypospadius is repaired between 6-12 months.
766. (c) Cleft lip is repaired at 3 months of age.
767. (a) 45, X/46, XY
768. (b) 12-24 months.

769. (a) Streptococcus pneumonia other organisms are Mycoplasma and Chlamydia.
770. (b) Streptococcus pneumoniae.
771. (e) Laboratory error. Serum sodium is low but chloride is normal.
772. (e) Retropharyngeal abscess.
773. (e) Wilms tumor.
774. (b) Serum alpha fetoprotein level is decreased in cirrhosis in early childhood, trisomy 18, trisomy 21, IUGR (intra uterine growth retardation), and incorrect gestational age estimate.
775. (e) Serum alpha fetoprotein level is increased in open neural tube defects, omphalocele, gastroschisis, cystic hygroma, congenital nephrosis, polycystic renal disease, amniotic bands, epidermolysis bullosum, hydrops with ascites, threatened abortion, Kell or Rh sensitization, retroplacental hemorrhage, multiple gestation, ectopia cordis, more advanced gestational age than expected, and some maternal diseases (e.g. viral hepatitis, liver cancer, yolk sac tumors, lupus anticoagulant).
776. (d) Baley scales of **infant** development.
777. (e) RSV can cause wintertime epidemics.
778. (c) Milk products or egg.
779. (c) Sensorineural hearing loss is due to genetic, congenital infectious (e.g. CMV, toxoplasmosis, syphilis, rubella), ototoxic drug (e.g. gentamicin), traumatic, autoimmune, and idiopathic causes.
780. (b) Conductive hearing loss is due to perforated ear drum (e.g. otitis media, trauma), tympanostomy tube, tympanosclerosis, cholesteatoma (acquired), ossicular damage (e.g., trauma, infection, cholesteatoma), masses in the middle ear or ear canal (e.g., rhabdomyosarcoma, salivary gland tumors, glomus tumors, Langerhan's cell histiocytosis), otosclerosis, osteogenesis imperfecta, and fibrous dysplasia.
781. (d) Chondrosarcoma and liver cancer are radioresistant.
782. (d) REM sleep.
783. (b) More active and alert.
784. (e) ADHD.
785. (c) The child is usually hypoactive.
786. (e) Optic neuritis.
787. (c) Gamma chain.
788. (e) Alpha 2, beta 2.
789. (b) Beta chain.
790. (e) Decreased glutathione in RBCs.
791. (a) A first few hours are important.
792. (b) Vitamin K.
793. (a) Alpha 2, gamma 2.
794. (d) Stevens-Johnson syndrome.
795. (b) Erythema nodosum.
796. (b) Thromboxane A2 level is increased.
797. (c) Antihypertensives are usually safe.
798. (c) Large molecules are safer than smaller molecules.
799. (e)
800. (d) DNA analysis.
801. (a) Neuroblastoma does not manifest with hemihypertrophy
802. (e)
803. (c) Salt-and-pepper appearance of retina is found in rubella and syphilis.
804. (b) Influenza vaccine is not indicated in patients with chronic sinusitis
805. (d) Epiglottitis.
806. (a) Genetic short stature.

807. (b) Constitutional short stature.
808. (d) Hypothyroidism.
809. (a) Brain.
810. (d) Lymphatic.
811. (e) Liver.
812. (c) Genitalia.
813. (b) Thymus.
814. (c) Blood Volume.
815. (e) Subcutaneous fat.
816. (a)
817. (e) Congenital rubella infection.
818. (c) Growth hormone deficiency.
819. (c) Respiratory acidosis.
820. (c) Respiratory alkalosis.
821. (b) Metabolic acidosis.
822. (e) Combined respiratory and metabolic acidosis.
823. (e) Normal.
824. (c) Sickle cell disease.
825. (a) Sickle cell trait.
826. (b) Thalassemia major.
827. (e) Iron deficiency anemia.
828. (d) Hemoglobin SC disease.
829. (a) Thalassemia (alpha) trait.
830. (d) Sickle beta thalassemia.
831. (a) No special diet is recommended.
832. (d) Normal.
833. (e)
834. (a) Rotavirus vaccine
835. (b) IPV vaccine is given if she is traveling to an endemic area
836. (d) Testicular feminization syndrome
837. (e) CAH
838. (a) Clostridium perfringens type C
839. (b) Abdominal x-ray is diagnostic of NEC.
840. (e) Eeutachian tube dysfunction or obstruction
841. (a) Intravaginal torsion is the most common type in children.
842. (c)
843. (b)
844. (d)
845. (e) Trichomonas vaginitis. Monial infection manifests as cheesy white plaques on an erythematous vaginal mucosa and a thick white-yellow discharge.
846. (b) Phenytoin.
847. (c)
848. (a) S. aureus.
849. (d)
850. (d) Transverse myelitis.

851. (a) Guillain-Barre syndrome.
852. (b) Genetic.
853. (c) Sural nerve biopsy is diagnostic.
854. (d) Acetylcysteine.
855. (e) Sodium bicarbonate is used to maintain pH 7.45-7.55 to treat and prevent dysrythmias. If unresponsive, then use lidocaine.
856. (a) Methylene blue.
857. (d) Pregnancy test.
858. (a)
859. (d) SMR 4 (60% of cases).
860. (e) Elbow injury can compromise radial, ulnar, and median nerves.
861. (e) Multifactorial.
862. (c) Circulation defect.
863. (c) 45, X/46, XY (has Y chromosome)
864. (d) Cystic fibrosis.
865. (e) Congenital CMV infection.
866. (e) Carbon monoxide poisoning.
867. (a) Methanol toxicity.
868. (b) UPJ obstruction.
869. (d) Karyotype.
870. (c) Hearing test is indicated in osteogenesis imperfecta.
871. (e) X-ray of thoracis spine.
872. (e) Congenital heart block.
873. (b) Tachycardia is absent.
874. (c) 10 months.
875. (b) Colles fracture can cause median nerve injury.
876. (d) Don’t use 4-0 suture.
877. (a) MVP.
878. (b) Routine serum monitoring of anticonvulsant levels are not recommended because practice is not cost effective.
879. (c) Food poisoning due to S. aureus because the onset of symptom was 1 hour ago.
880. (c) Anti-DNase B level begins to rise 4 to 6 weeks after infection.
881. (e)
882. (d) Spironolactone.
883. (a) Captopril.
884. (c) Hydralazine.
885. (b) Lactose intolerance can develop after recovering from acute enteric infection.
886. (e) LH causes 2nd and 3rd trimesters penile growth.
887. (a) Occasionally, surgical correction is required.
888. (e) Respiratory symptoms.
889. (b) Chest x-ray.
890. (c) Perinatal asphyxia.
891. (a) Cold plain water.
892. (c)
893. (c) IgE.

894. (e)
895. (b) 4%.
896. (e)
897. (b) Oral nystatin. Mildly enlarged liver and spleen are normal for his age.
898. (e) Parainfluenza virus.
899. (c) Hydrops of the gallbladder is a complication of Kawasaki disease.
900. (d) Urinalysis is performed to rule out UTI. Thyroid function test is performed to rule out hypothyroidism. CBC is performed to rule out an infection. X-ray of hands/wrists is performed to detect the bone age. Head CT scan is not indicated because she has no history of vomiting, nausea, headache, and visual difficulties. Physical examination did not reveal papilledema.
901. (e) Scrofula (i.e., tuberculosis of superficial lymph nodes).
902. (d) Inadequate treatment or monotherapy is the most common cause.
903. (a) Prior vaccination with BCG is not a contraindication to TST.
904. (e) Pyrazinamide.
905. (b) Ethionamide is a bacteriostatic drug.
906. (a) Hydrocephalus does not occur.
907. (b) Goldenhar syndrome.
908. (e)
909. (b) Zinc.
910. (e)
911. (c)
912. (a)
913. (c) IgA nephropathy.
914. (b) Increased to 5:1 to 10:1 (normal 2:1 to 4:1).
915. (d)
916. (e)
917. (c)
918. (b) Hyperglycemia.
919. (e) Vitamin K deficiency in breast milk.
920. (c) Selenium toxicity.
921. (c) Toddler diarrhea. Sorbitol and fructose can cause diarrhea. Sorbitol is a nonabsorbable sugar and is present in apple, pear, and prune juices. Apple and pear juices contain higher amount of fructose than glucose. White grape juice is preferred.
922. (e)
923. (a) Breast buds.
924. (a) Neglect.
925. (e) Normal.
926. (d) Heroin overdose.
927. (e) GBS.
928. (e) Ruptured appendix.
929. (c)
930. (e) Vitamin E.
931. (c) Echocardiogram.
932. (e) IVIG and high-dose of aspirin should be given in patients with acute Kawasaki disease.
933. (e) Nerve agents.
934. (d) Post-traumatic syndrome.

935. (b) Observation. However, severe skull depression should be elevated to avoid cortical injury.
936. (c) Gonococcal opthalmitis.
937. (a) Fanconi syndrome.
938. (c) Severe fetal anemia causes sinusoidal pattern.
939. (e) Hand washing is extremely important.
940. (a) Mother should wear a face mask.
941. (b) Breast feeding is contraindicated.
942. (e) Left choanal stenosis.
943. (b) Bilateral choanal atresia.
944. (c) Posterior fossa tumor involving sixth cranial nerve.
945. (e) Thyroid agenesis of the newborn.
946. (e) Endemic congenital hypothyroidism.
947. (b) Normal intelligence and problem solving.
948. (c) IgE mediates allergic disease.
949. (d) Turner syndrome.
950. (e) Retinoblastoma.
951. (a) Peritonsillar abscess.
952. (b) Retropharyngeal abscess.
953. (b) Group A Streptococcus.
954. (e) Colic.
955. (b) Deep thigh hematoma.
956. (c) Mastoiditis.
957. (d) Massive hemorrhage is rare.
958. (e) Uteroplacental insufficiency causes IUGR.
959. (e) Auditory evoke response test
960. (e) Herpes simplex. Mother may not present with active lesions.
961. (a) Strict hand washing.
962. (d) Infants younger than 12 months of age who have close contact with primary care giver with acute hepatitis B infection should receive HBIG (1 dose) and hepatitis B vaccine (3 doses within 6 months).
963. (e) Radionuclide bone scan is the best diagnostic study.
964. (e) Exclusive breast feeding in first 6 months may delay the onset of atopic diseases.
965. (b) Tinea pedis.
966. (a) Ectopic ureter connecting into either uterus or vagina.
967. (e) Immunodeficient children develop recurrent pneumonias and/or meningitis.
968. (a) Rumination. More common in males than females.
969. (c)
970. (e) Transient bronchoconstriction.
971. (a) Hypokalemia.
972. (b) Hypertension is mostly sustained.
973. (d)
974. (b) Ectopic thyroid.
975. (a)
976. (e)
977. (d) Foreign body inside larynx.
978. (d) Foreign body inside trachea.

979. (c) Benzoyl ecogonine.
980. (e)
981. (c)
982. (e) Peripheral cyanosis is due to hypothermia. Grade 1/6 murmur is a normal finding.
983. (d) A healthy girl did not gain weight due to inadequate calorie intake.
984. (e) Infantile spasm is treated with ACTH and glucocorticoids.
985. (e) Acute poststreptococcal glomerulonephritis. In hemolytic uremic syndrome hematocrit and platelet are decreased.
986. (e) Hyponatremia and hyperkalemia indicate adrenal hypofunction.
987. (c) 6 months old.
988. (e) The patient who receives steroids regularly should receive intravenous steroid before surgery to avoid hypotension.
989. (a) Beta-agonist bronchodilator.
990. (e) Obesity is due to increased caloric intake.
991. (a) Presence of MIS.
992. (a) Reflux nephropathy. She developed high BP due to recurrent UTIs. She has high K, high creatinine, and low bicarbonate.
993. (d) Oral ferrous sulfate.
994. (a) Asthama with cerebral edema.
995. (e) Hepatic rickets are more common in extrahepatic biliary atresia than intrahepatic biliary atresia due to decreased absorption of vitamin D secondary to lack of bile salts. Hepatic rickets are treated with Vitamin D.
996. (d) MCT.
997. (c) Essential hypertension.
998. (c) Exposure to smoking may increase the risk of atopy.
999. (d) Bacterial meningitis.
1000. (c) CMV.
1001. (d)
1002. (a) Aqueductal stenosis.
1003. (b) Arnold-Chiari malformation.
1004. (e) Insulin-induced hypoglycemia.
1005. (a) Children 10-year-old and older should be able to give their own injections. Parents should know how to give glucagon and should supervise when the patient draws up insulin into syringe. Children should eat adequately. Children should not exercise excessively.
1006. (c) Malrotation.
1007. (e) Rectal suction biopsy.
1008. (e)
1009. (a)
1010. (b) Dexamethasone.
1011. (e) Ataxia telangiectasia.
1012. (e)
1013. (b)
1014. (c) Steatorrhea.
1015. (a) S. aureus.
1016. (b) Erythema multiforme.